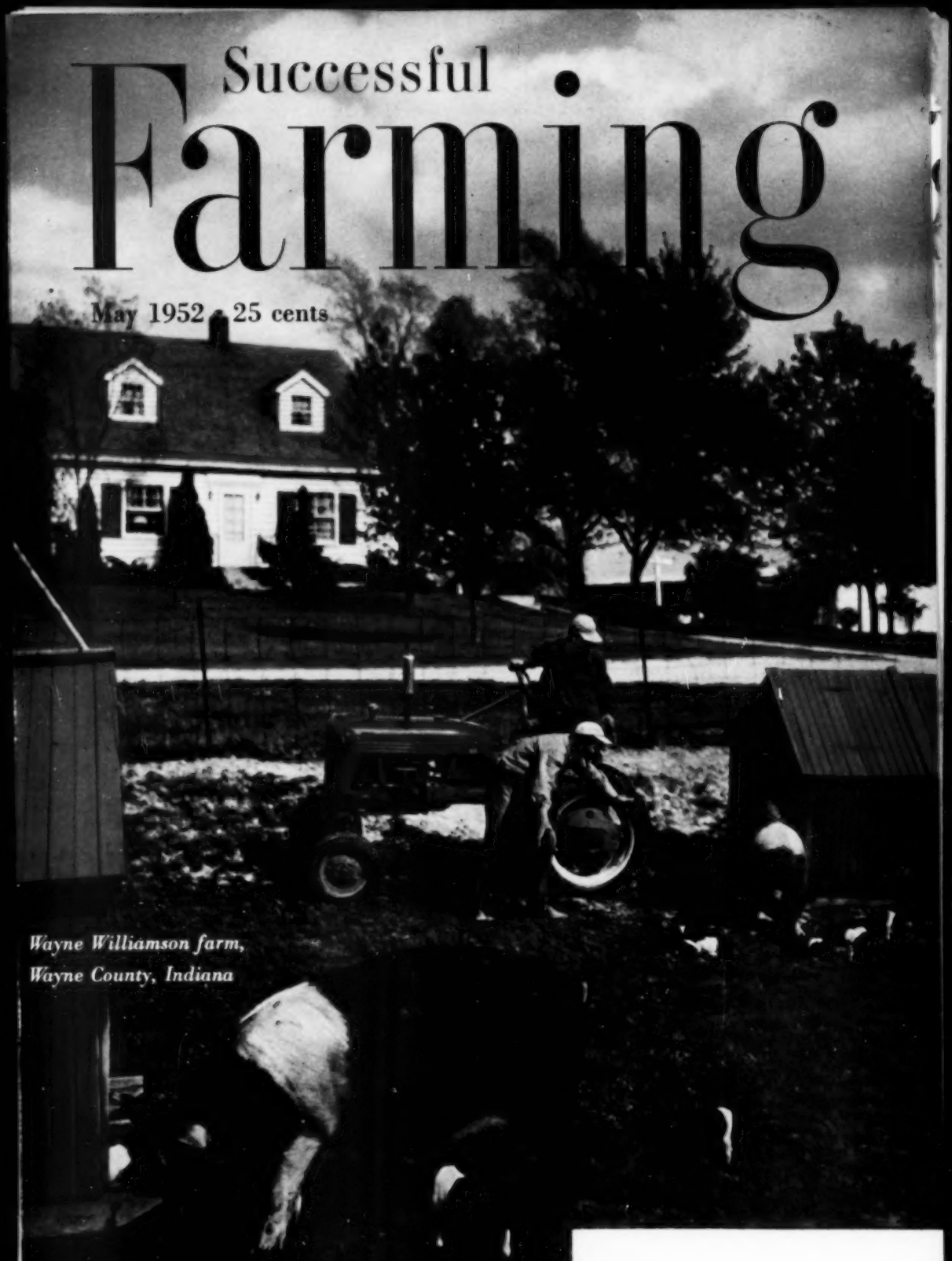
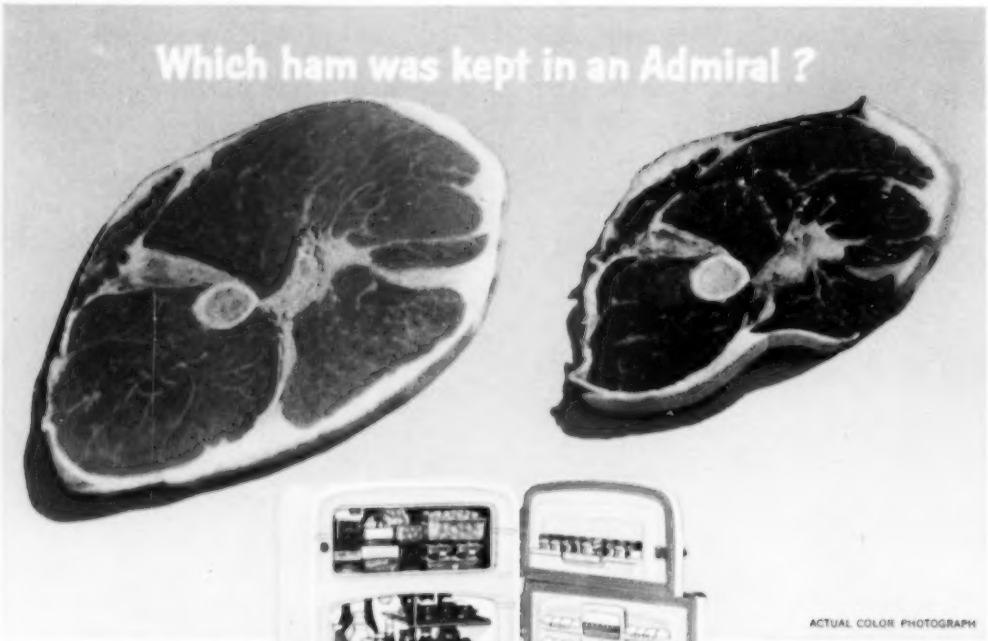
Successful Farming

May 1952 • 25 cents



Wayne Williamson farm, Wayne County, Indiana

Inside: Save with bulk fertilizer



Actual full color photograph of a ham slice left uncovered for five days in an Admiral Dual-Temp. Moist-cold kept it fresh, appetizing, flavorful. Foods don't dry out in an Admiral Dual-Temp!

This very next slice from the same ham (note similar pattern of fat) was left uncovered five days in an ordinary refrigerator. It is dried out, discolored, shrunken. Just compare this with ham left in Admiral Dual-Temp!

New! Super Dual-Temp with Double Door!

Super in size! Super in convenience! Super in food savings! That's the giant new 12.2 cu. ft. Admiral Dual-Temp with separate doors for freezer and moist-cold compartment. Now, when you want something from the freezer, just a flick of the handle *and you help yourself!*

As always, the Admiral Dual-Temp is one refrigerator where *foods just don't dry out!* Meats, leftovers, fruits, vegetables . . . all stay fresh for days without covering —without mingling of odors or flavors! Foods keep better in the huge freezer, too, which quick-freezes at temperatures as low as 52° below freezing—stores up to 77 lbs. of frozen foods. See this new Dual-Temp now at your nearby Admiral dealer's.

Guaranteed by Good Housekeeping

Admiral refrigerators begin as low as $199.95

ADMIRAL ELECTRIC RANGES—the only ranges that give you the accuracy of Flex-O-Heat controls, plus the automatic self-turning Rotary Roaster.

Free: Subscription to "Smart Living". See your Admiral dealer.

Radio: "World News with Bob Trout" Sundays, 5:30 EST over CBS.

Admiral

DUAL-TEMP

NO DEFROSTING...EVER!

TELEVISION • APPLIANCES

Let's get down to earth about tractor tires

You often see claims that this or that tractor tire cleans better, wears longer, delivers greater traction.

Better than what? Longer than what? Greater than what? It's all very confusing.

But there's one tire that tells its own story in a way that is *not* confusing—in the only way that means anything—*right down in the soil!*

Its performance is so convincing there—where it counts—that American farmers have made it their *First Choice* tractor tire by a tremendous margin.

If you're not already using Super-Sure-Grips on your tractor, ask a neighbor who is. Chances are, he'll tell you they pull better than any tires he's ever had.

That's what millions of farmers say—Goodyear's Super-Sure-Grips give you "the greatest pull on earth!"

Who could give you better advice?

WHY GOODYEAR'S YOUR BUY

STRAIGHT LUGS! Goodyear lugs are ruler-straight and come closer together at the shoulders—providing the time-proved, wedge-like bite that holds the soil in place and gives this tire more traction—gives your tractor more pulling power.

O-P-E-N C-E-N-T-E-R pioneered by Goodyear. Most widely imitated of all tractor tread designs because farm experience proves it the most efficient—*when combined with straight lugs!*

EVEN WEAR! Goodyear *straight* lugs work against the soil evenly, pull evenly, wear more evenly—to lengthen tire life and make your tire dollars go farther.

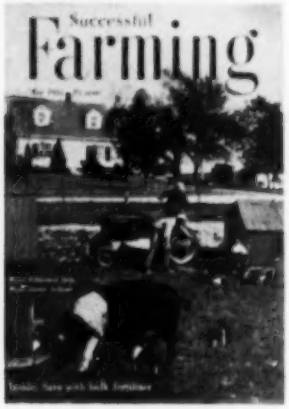
FIRST in Traction! FIRST in Long Wear! FIRST in Popularity!

GOODYEAR

Super-Sure-Grip Tractor Tires

Super-Sure-Grip—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

This month



Photograph: Lew Merrim

It's pasture time when May rolls around on the Wayne Williamson farm in Wayne County, Indiana. The first to go are the sows and pigs. Right behind them are the houses, feeders, and waterers. Williamson likes to have the farrowing houses close at hand for winter farrowing, but pasture gets the nod for late-spring and fall pigs. They're farrowed right out on the alfalfa-brome-Ladino pasture.

Pictured on this month's cover is one of Williamson's individual-type farrowing houses being moved from the winter location to pasture. The pigs seen in the picture were farrowed in early April. After weaning, the pigs are shifted to range houses, making the individual houses available for June-farrowed pigs.

The pastures are rotated each year as a precaution against disease. Williamson likes his pastures to be close enough to the farmstead so that an electric line can be strung to each individual house to power heat lamps. All equipment, including feeders, waterers, and houses, is on skids and can be easily moved.

Williamson's swine program is a combination of the 1- and 2-litters-a-year systems. One set of sows farrows once a year in June; the other set farrows twice a year—in February and September. Sows used in the 1-litter-a-year plan are kept for 1 litter only and then marketed; the ones used in the 2-litter-a-year plan are kept for 2 to 3 litters. Each year, Williamson produces from 300 to 350 market hogs.

However, hogs aren't the only source of livestock income on the 320-acre Williamson farm. He keeps a 20-to-25-cow dairy herd, a 300-hen laying flock, and a ewe flock.

Farming also has taken good roots with the rest of the Williamson family. All three boys—Maurice, Quenton, and Stanley—are active in 4-H work. In all, they have won 3 grand championships, 3 reserve championships, 24 firsts, and 16 seconds in 4-H work.

In 1950, Maurice graduated from Purdue University with a degree in

[*Turn to page 60*

Successful
Farming
The Dairy Farmer

THE MAGAZINE OF FARM BUSINESS AND FARM HOMES
May, 1952 Vol. 50, No. 5

Management and Business

Farm outlook ... 6
Friend to friend ... 8
"Syndets"—from dishpan to feedlot ... 15
The farmer's Washington ... 16
Come and see for yourself ... 22
Soil conservation—what's ahead? 33
Fertilizer in bulk ... 34

Herds, Flocks, Crops

How much roughage can a cow eat? ... 36
Weed killers ... 44
5-point planting plan ... 48
Successful formula for a profitable farm flock ... 50
Poultry pointers ... 124
Vaccination and blood testing for Bang's ... 130
Dairy ... 144
How to clear up pond water ... 156
Plant sorghum where wheat leaves off ... 164
Livestock ... 168
How to prevent and treat bloat ... 170
Veterinary ... 172
Good pasture is a bargain ... 174

Homemaking

Formula for better decorating ... 20
What's new in homemaking ... 24
All around the house ... 28
Make pies light and delicious for spring ... 40
House-dress news ... 42
30-minute meals ... 46
Three freezer problems ... 47
Doubly useful tables ... 52
Tips for the cook ... 54
Fruit-topped for flavor ... 57
Treats from a May garden ... 58
Get together with glue ... 64
Tasty ways with toast ... 66
Mrs. Ralston's whole-wheat bread ... 90
Ways with citrus fruits ... 99
Citrus fruit gives food a lift ... 118
Home planning helps ... 122
A counting board for frozen foods 123
Revival of an old piano bench ... 138
How to measure your windows for draperies and curtains ... 140
Herbs add zest to vegetables ... 154
15 ways to save space in your freezer ... 158
Latest "know-how" in foods ... 161

Farm Building and Machinery

What's new in farming ... 10
From attic to growing room ... 104
Portable farm buildings are made stronger with glue ... 110
Successful shortcuts ... 114
All around the farm ... 180

Family Life and Fun

Books ... 12
What was new in farming 50 years ago ... 30
The Prices found a lot of life in a tired farm ... 38
The farm quizbox ... 68
Laughing at life ... 84
Perfume pointers ... 88
May-basket make-it ... 93
Highway accidents ... 101
Give your child a chance with a garden ... 136
Blandinsville's spring party ... 152
The playhouse ... 162

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A STITCH IN TIME...

For everybody there comes a day when it is too late.

One day you can get life insurance. The next day you can't.

Last year many thousands of people who wanted life insurance tried to get it and failed. Some health impairment had set in. They had waited too long.

While you are in good health, life insurance may not seem a pressing matter. Usually, it seems urgent only when you are ill or when you have escaped from what might have been a fatal accident.

When the agent urges you not to delay, you may feel he is too persistent. Perhaps you say "he just wants to sell a policy." But that isn't all. That notice, "Rejected for medical reasons" is an old story with him. He sees those same words too often not to realize that in buying life insurance delays are dangerous.

If you intend to own more life insurance "some day," why not take the first step before it is too late?

NEW YORK LIFE
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THE NEW YORK LIFE AGENT
IN YOUR COUNTY
IS A GOOD MAN TO KNOW

New York Life, a mutual company, pays dividends to policyholders only. It is one of the strongest legal reserve companies in the world.

Farm Outlook

Latest information on conditions, production, markets, and income prospects

Commodity prices decline

World commodity prices have declined. Supplies have increased and demands for critical materials have moderated. War tensions—on global scale—seem to have eased. Neither governments nor individuals have been bidding up prices of basic commodities as they did in anticipation of higher commodity values following the outbreak of hostilities in Korea.

Farm prices down

Here at home, more materials are available for the production of civilian goods without interfering with defense production. Some prices have eased, but more at primary and wholesale than at retail levels. You have been paying record-high prices for farm and home goods, whereas prices received for farm commodities have averaged the lowest in more than a year. In purchasing power, your products have been back to pre-Korea levels. Industrial products of all kinds have stood at new record highs.

Costs up, cash down

This year's farm-production expenses will top last year's $22.5 billion—a new high mark—which is more than two-thirds your estimated cash receipts from farm marketings. These expenses include purchased feed and livestock, fertilizer, hired labor, and other operating expenses. Also included are rent, interest, taxes, and other overhead costs.

Crop acreage down

Crop acreages will fall short of government goals, especially for feed grains and cotton. While farm-production costs stay high, most new crops are likely to sell lower this year than last—particularly during early marketing months. If crop output is to be increased, extra emphasis must be put on bigger yields.

Livestock prices lower

Livestock and most livestock products will sell lower until reductions in hog and poultry production show up in the markets next fall and winter. B.A.E. admits that prices of meat animals are held down by ceilings. Now the price pendulum has swung, but there are no supports for these animals.

Southern cattle increase

Much of the increase of 11 million head in the cattle and calf population the last few years has been in the South. Southern farmers added 4.4 million head in the three years 1949-51, contrasted with an increase of 4.8 million in the Cornbelt. Biggest increases were in the western Cornbelt (3.6 million) and in the South Central states (3.3 million). Of the total increase in numbers, the western Cornbelt went down in milk animals while the South took a definite jump.

Hog forecast

Predictions that the decline in this year's spring pig crop will be followed by a decline in the fall crop may be wrong. In 1948, the corn-hog price ratio was lower than it is now. Yet, the fall pig crop of 1948 was increased by more than 2 million head from the preceding fall. What happened was that the spring crop had been reduced but the corn crop was a whopping 3.7 billion bushels. By the end of 1948, the corn-hog price ratio was nearly double what it had been in the spring. The same sort of thing could happen this year. The spring pig crop is down (probably more than 9 percent), but it's likely that corn acreage will be increased. With bigger yields from the acres planted, the corn crop this year could be within the range of 3.5 to 4 billion bushels.

Go slow on soybeans

Don't go overboard on soybeans. Big supply of meal will be needed, but fats and oils supply is large. Another big cottonseed crop is in prospect, and export demand for soybeans will be limited to a degree. Put extra acres into feed grains for surer profits.

Smaller flocks

Farm poultry flocks will be smaller next fall and winter—a good opportunity for efficient keepers. Egg-feed price ratio was so low last winter that farmers reported they intended to raise 10 percent fewer chickens for laying-flock replacement. But this won't affect egg production until the last few months of 1952. Meanwhile, this year's egg production will be higher than last year's total.

More and more broilers

Commercial broiler production goes up and up. Old areas are expanding and new ones are coming into the picture. Early-season broiler replacements were 20 percent above a year earlier. Competition will be tough in the broiler industry. Growers who don't follow good management practices will be squeezed hard—and perhaps out. Narrow margins for broiler raisers are to be expected during the period ahead.

Dairy turning point

This year's milk prices above high-cost feed and labor may mark the turning point in the long decline in the number of milk cows. The decline in cow numbers reflects the reduced demand for butter and the relatively better returns from enterprises competitive with dairying. However, increased production of milk the next few years is most likely in areas of relatively favorable fluid-milk and manufacturing-milk outlets. Efficient dairymen in these areas will have a chance for good returns on their investment.

Corn prospects

P.M.A. doesn't expect to reach the asked-for 89 million acres of corn this year, but the acreage will top last year's 84 million. Some of the increase may come out of soybeans. Corn carryover will be about 425 million bushels next October, compared with 739 million last October. At the same time, it's expected that more corn will be fed in 1952-53 in spite of the planned reduction in this year's pig numbers. The increase will go to other livestock and poultry.

Wheat controls

Acreage allotments may be applied to the 1953-crop wheat to be planted this fall. If this year's crop makes as much as 1,200 million bushels, carryover would be substantially increased next year. Government decision on allotments also will depend upon prospects for renewal of the International Wheat Agreement which expires with this year's crop. If reduction in acreage appears desirable this summer, government officials believe there is no way of reducing wheat acreage short of acreage allotments.

Wool to government

The way the wool situation stacks up now, most of this year's clip may go under loan to C.C.C. Loan instead of purchase program is being used this year so that wool producers can get the benefit of any subsequent rise in prices. If there is no rise, the wool eventually will pass into government ownership for possible leverage against future rise in foreign wool. **END**

LONG A DREAM ..... TODAY IT COMES TRUE ....

EAGLE HITCH Farming

Here's a brilliant new way of doing your farm work—with Eagle Hitch now built into big 2-plow and 3-plow Case Tractors. In mere minutes you switch from mounted Break-Away Contour Plow to lift-type harrow or planter, from toolbar tiller to mounted mower. You hustle along the highway and your Eagle Hitch Implements never touch the hard surface. You skip across sod strips or new seeding without your Eagle Hitch Harrow leaving so much as a scratch. You back into corners with a 4-section drag, shake trash from spring teeth at a touch of hydraulic control. You make short turns, quick stops with a gentle push on the new self-energizing double-disk brakes.

LIVE POWER TAKE-OFF

. . . lightens your work, helps save grain and feed, makes fuel go far and tractor last long. Now you can apply tractor power to wheels or PTO or both. You can keep your combine, forage harvester or other PTO machine going full speed, start and stop travel as desired. PTO clutch is on live-power shaft, independent of traction clutch.

LIVE HYDRAULIC CONTROL

. . . another time-saving advantage of Case Eagle Hitch Farming . . . is ready to act at any instant, moving or standing, when the engine is running. Live Hydraulic Control works with both mounted and trailed implements. In Case "SC" and "DC" Tractors hydraulic control, power take-off, and traction are all independent of one another.

Eagle Hitch Farming is the sum total not only of a vastly superior way of mounting, driving and controlling implements, but also the fast-acting, shock-free steering—the dust-sealed, oil-cushioned clutch—the stamina, long life and low upkeep that have made Case Tractors famous. All these great qualities are now harmoniously built into the years-ahead Case Tractors for Eagle Hitch Farming. Visit your Case dealer now—see how Eagle Hitch Farming is fitted to farms of every size with the big 2-plow "SC" and 3-plow "DC" Case Tractors. You can swing this very day to such a satisfying, productive way of farming as you dared only dream of until now.

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GET A PERSONAL DEMONSTRATION

After you've had a good close look at Case Eagle Hitch Tractors and Implements, arrange with your Case dealer for a personal demonstration on your own farm.

FIND OUT MORE ABOUT EAGLE HITCH FARMING

Case builds 25 great tractors and a full line of farm machines. Mark here or write in margin any you need. J. I. Case Co., Dept. E-77, Racine, Wis.

- ☐ 2-plow "VAC" Eagle Hitch Tractor
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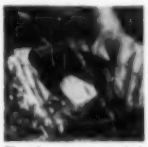
Here's how *for home painters*

How to paint your ceilings – Use small brush for edges and a lamb's wool paint roller. Roller eliminates dripping . . . applies paint 2 to 4 times as fast . . . and gives smoother job. Always start near main source of light and work away from it . . . easier to see places skipped.

Why paint masonry? Concrete, stucco and brick surfaces absorb moisture like a sponge. This weakens cement and mortar. Soon cracking starts because of temperature changes. Painting with Bay State Brick and Cement Coating prevents this damage . . . also reduces indoor dampness and heating costs.



What to do with brushes between jobs – If you'll be painting again in a few days, bristles will stay soft wrapped in kitchen aluminum. For longer–soak brush in "keeping" mixture of ⅔ raw linseed oil and ⅓ turpentine. For best application results, always use a "Superkleen" brush.

How to paint a window – Hold strip of metal on glass against molding. Paint the wood, letting your brush lap over onto shield. Best brush is an angular sash tool. Another way to keep paint off glass is to use masking tape. The paint to use is Devoe Trim and Shutter Colors.

YOU can get all the painting accessories you need – and many more helpful tips – at your neighborhood Devoe dealer. You'll find his name listed in the classified section of your phone book. Why not stop in and see him at the sign of the Devoe diamond.

DEVOE PAINT

Friend to Friend

How good dry forage?

You will be reading many articles on rumen digestion during the coming year. Startling discoveries are being made in the cow's dark interior. They all point toward a more efficient use of feed, especially forages. Already the use of corncobs has been sharply increased. Cornstalks, coarse hays, and straws have the same possibilities. Special commercial mixtures are available which claim great value in making available for digestion the coarse, fibrous materials usually left in the fields or used as bedding.

Some of the hopes for low-grade roughage might make it seem useless to take a lot of pains putting up hay this summer. I can't get the idea through my head that deliberate waste of minerals, vitamins, and protein in hay will ever make sense. I'll grant the need to increase feed supplies if we are going to hold or increase livestock numbers. For cattle, that increase should be in forages. The need for better hay and silage is greater than ever.

Pigs in the spotlight

Take an afternoon nap and you will get behind on happenings in the swine world! Here in our editorial offices we are always digging for the newest things, and yet we often get some big surprises. The other day a friend dropped by to invite us out to see his pig hatchery. Now the hatchery idea isn't news any more—but the number of them right near us was news.

The new practice of using substitute sow's milk to relieve the sow partly or completely of the business of suckling pigs has encouraged many hatcherymen. I await with keen interest the developments of the next five years. Will well-started pigs become cheaper with more competition? How cheaply can they be produced? Have the disease problems that held back development of hatcheries for years been mastered? All these questions apply to the Cornbelt, and also to the fringe area where corn is a minor crop and grass must carry the sows and growing pigs and maybe do most of the finishing.

Should a large and regular volume of hogs be finished in the fringes of the Cornbelt, will a special trade develop for that kind of pork? Will it hasten the decline of the lardy, Cornbelt type? It's time some of our large food-technology setups at the agricultural colleges got to working on these answers. Must the packers develop new cuts of pork and new methods of handling cuts from hogs finished largely on grass? Will the meat be of good flavor?

And now to think about some of the new hog-breeding problems. Will the lardy beast fed under the usual Cornbelt routine be something quite different if given more time and more grass? I believe he will. That would be much easier than developing new breeds. Must we have new breeds for the new requirements? Who will do the required swine-improvement breeding work if hatcheries supply 30 to 40 percent of the commercial feeder pigs in a few years?

As yet, we cannot get along without purebreds from which to make crosses. Nor have too many farmers abandoned the purebred commercial herd. Who will maintain such herds? Will the use of antibiotics to speed up gains force a change in breeding to overcome their effect on thickness of fat backs? How about artificial insemination? Must feeding methods be overhauled again?

I cannot resist punning that the most "questionable" business today is hog raising. Just look at all the questions I have raised! You doubtless have thought of many more.

Stay alive this spring

The merry month of May should be just that. Let no accident to you or yours mar its pleasant, busy days. And don't let spring's pleasantness throw you off your guard against that ornery bull. Last year, Illinois farmers reduced sharply the number of bulls—yet the bug-eyed beasts caused 60 percent *more* injuries than in the previous year! Drownings, too, showed a sharp increase among farm people in that state. Let the old swimming hole warm up before you try it.

Top killer in Illinois during 1951 was the tipping tractor. In no case reported did the tractor turn mean like a bull and kill a trusting operator. *The operator turned careless* and forced a fine piece of machinery to remove him from this earth.

Top cripplers for the year studied were the combine and cornpicker. Here again well-designed machines got the blame instead of carelessness, haste, and other human excuses. I grieve for the families of the injured while I plead with the sound and the living to be careful not only in May but also for the next 11 months.

Kirk Fox

Which Farmer Has the Most Telephone Service?

U. S. FARMER

SWEDISH FARMER

NEW ZEALAND FARMER

FRENCH FARMER

NORWEGIAN FARMER

AUSTRALIAN FARMER

DANISH FARMER

SWISS FARMER

The answer is, of course, the American farmer. A larger proportion of the farmers here in the United States have telephones than in any other country.

In the last six years, the Bell System has added about 1,850,000 telephones in rural areas. To accomplish this, we've constructed thousands of miles of pole line and installed an immense amount of other equipment.

We've also made good progress in improving service. The number of families on a line is being reduced. Nine out of ten customers hear the rings of fewer parties on their lines. Nine out of ten rural customers have new-type telephones.

No wonder the U. S. farmer has the most telephone service! And we're moving steadily ahead—to give him even more.

BELL TELEPHONE SYSTEM

For extra disc life you will want to know that the people who make La Belle discs make their own steel.

Because we make our own steel we don't have to "shop the market" in these days of steel allocation. Nor do we trust to others the delicate art of steel formulation. Step by step our own skilled steel craftsmen have complete control of every manufacturing process.

This constant control results in a quality disc from the world's largest tool steel producer — Crucible. Look for the triangular trade mark ✡ of La Belle, your mark of quality.

La Belle discs are available for every disc harrow or plow ever made . . . and for your kind of farming.

CRUCIBLE

AGRICULTURAL STEELS

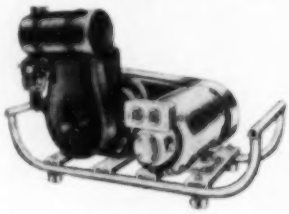
CRUCIBLE STEEL COMPANY OF AMERICA
OLIVER BUILDING, PITTSBURGH, PA.

STAINLESS • REX HIGH SPEED • TOOL • ALLOY MACHINERY • SPECIAL PURPOSE STEELS

What's new in farming®

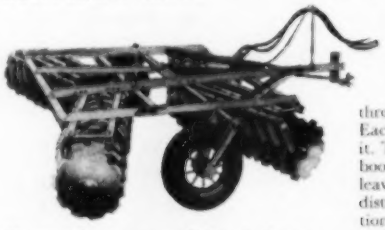
Tips you can use today

Portable generator. This gas engine-driven, portable electric generator is available in three general ratings: 1000, 1250, and 1350 watts at 115 volts, 60



cycles, A. C. The unit is equipped with a universal mounting base which permits the mounting of any one of several makes of engines.—*Wincharger Corporation, Sioux City, Iowa.*

New soybean variety. The Missouri Agricultural Experiment Station has announced a new soybean variety for central and southern Missouri. The new variety, Perry, has been increased simultaneously by the experiment stations in Indiana, Illinois, Missouri, and Kansas. In Missouri tests during the past six years, Perry has averaged about 9 percent higher in yield than Wabash, the most widely grown variety at present. In general, Perry is adapted to the southern two-thirds of Missouri.

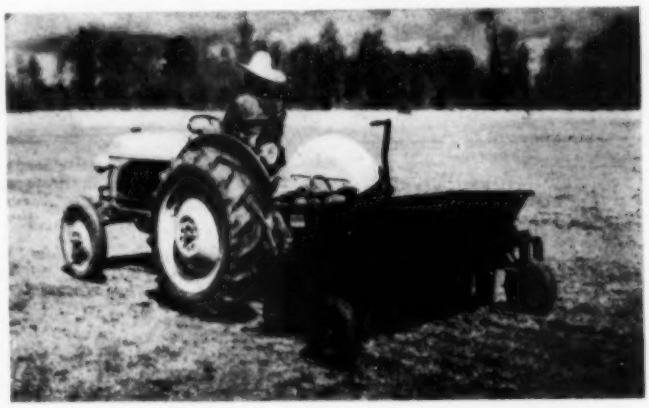


Heavy disc harrow. This wheel-type tandem disc harrow is said to provide complete depth control and superior trash-cutting qualities. The unit weighs 1,600 pounds. The disc is raised and lowered by a hydraulic unit and the pneumatic-tired wheels allow the disc to be towed at any tractor speed.—*Farm Tools, Inc., Mansfield, Ohio.*

Steam cleaner. This steam cleaner can be used for cleaning dairy barns, farrowing houses, poultry houses, feeders, and waterers. This cleaner is an oil-burning model equipped with an electric motor. Gasoline engines can also be used to

make the unit portable. The pump supplies 110 gallons of cleaning solution per hour. Disinfectants can be added to the water and are applied to the building during the cleaning operation.—*Kelite Products, 3401 W. Touhy Ave., Chicago 45, Illinois.*

Pasture renovator. This machine has two hopper compartpartments—one for seed and the other for fertilizer. Below the hopper are seven special boots through which seed and fertilizer fall. Each boot has a rolling colter ahead of it. The foot, at the lower end of each boot, has a long, thin point which leaves the existing sod practically undisturbed during the seeding operation. Spacing between the feet is 10 inches. The entire boot-and-foot assembly is attached to the hydraulic system of the tractor.—*Taylor Machine Works, Louisville, Mississippi.*



Top hand from a famous family!

You can comb the county without finding a better "top hand" than an International Truck with pickup body.

One reason is the 45 years of truck manufacturing experience behind every International Truck. What's more, each comes from the same family that has been building dependable farm equipment for over a century. True to family traditions, International pickups deliver outstanding performance and enduring economy.

Why not invest thirty minutes in finding out why? Do it next time you're near an International Truck Dealer or Branch.

Look for these International pickup truck exclusives—

- Silver Diamond valve-in-head engine, designed exclusively for truck work, developed and built in the world's largest exclusive truck engine plant.
- The "roomiest, most comfortable cab on the road"—the Comfo-Vision Cab—designed for all-day driving comfort.
- Super-steering system—more positive steering control with easier handling. 37° turning angle for greater maneuverability.
- 9 models—gross vehicle weight ratings from 4,200 to 8,600 lbs. 6½, 8 and 9-ft. bodies. 115, 127 and 134-in. wheelbases.
- The same traditional truck toughness which has kept Internationals first in heavy-duty truck sales for 20 straight years.
- America's largest exclusive truck service organization.

INTERNATIONAL HARVESTER COMPANY • CHICAGO

International Harvester Builds McCormick Farm Equipment and Farmall Tractors . . . Motor Trucks . . . Industrial Power . . . Refrigerators and Freezers

INTERNATIONAL TRUCKS

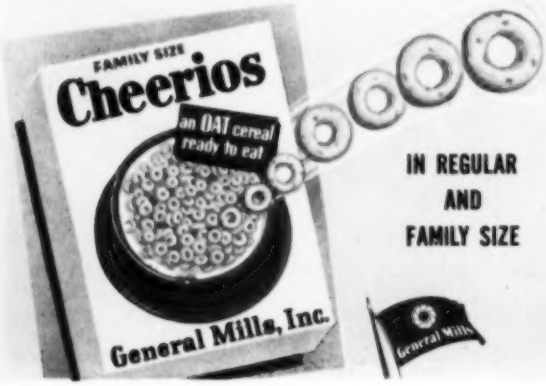
Model L-120, with 8-foot pickup body, 125-in. wheelbase, 5,400 lbs. GVW.

He's feeling his CHEERIOS...

—the OAT CEREAL that needs No Cooking!

Yes ... a ready-to-eat OAT CEREAL with a whale of a lot of *GO* power!

Try Cheerios! There's no easier way to serve that wonderful oat energy your family should have at breakfast time. Cheerios . . . made from that good grain, *oats* . . . comes to you in a modern way, ready-to-eat. It's the only famous oat cereal that needs no cooking! The only cereal shaped like golden, light, little doughnuts! Get the large, Family Size package of crisp, delicious Cheerios. It contains 50% more ready-to-eat Cheerios than the regular size package.



IN REGULAR AND FAMILY SIZE

General Mills

Books

for your pleasure and profit

By Robert West Howard

A shelf filled with **Alice in Wonderland, Bre'r Rabbit, Jungle Tales,** and other childhood favorites can be one of the principal reasons for material and social success in adult life. A bit startling, yet it's true. Studies made over a 20-year period indicate boys and girls who make the best grades in school and show the most rapid progress after graduation are the ones who had a good variety of books.

Now, with the close of school only a few weeks away, May is an excellent time to plan vacation-time reading.

If you would like your children to do some living-room travel this summer, and introduce them to farms and family problems around the world, write for the list of 200 books selected for children and young people by Norah E. Beust, United States Office of Education, Federal Security Agency, Washington 25, D. C.

Here are some of the best in modern books for young people from age 10 up:

Herbert S. Zim, Wilfred S. Bronson, and W. Maxwell Reed should be names to bring a thrill to most farm boys and girls. Each has written exciting books on the universe, the seas, plants, and animals.

Doctor Zim, now educational consultant to the United States Fish and Wildlife Service, is author of **Parachutes, Submarines, Minerals, Air Navigation,** and **Man in the Air** (Harcourt, Brace & Co., 383 Madison Ave., New York, New York, each $3.50). Early this spring, with Dr. R. H. Baker of the University of Illinois, he co-authored **Stars,** fourth in the series of pocket-sized Golden Nature Guides (Simon & Schuster, 1230 Sixth Ave., New York 20, New York, $1).

Wilfred S. Bronson's works include **Children of the Sea** ($4), **Wonder World of Ants** ($2.50), **Turtles** ($2.50), and **The Grasshopper Book** ($2.50). W. Maxwell Reed wrote **The Earth for Sam, The Stars for Sam, The Sea for Sam,** and **Animals on the March** (each $4.50). They combine to tell his small nephew, Sam, about the heavens, land, and oceans. (Both authors are published by Harcourt, Brace & Co.)

Album of Horses (Rand McNally & Co., 536 S. Clark St., Chicago 5, Illinois, $2.95) is a big book with realistic color paintings, by Wesley Dennis, of every famous breed of horse from Arabian, mustang, and thoroughbred through Suffolk and Shetland ponies. The descriptive text is by Marguerite Henry.

The Modern Wonder Book of Trains and **The Modern Wonder Book of Ships** by Norman Carlisle (John C. Winston Co., 1006 Arch St., Philadelphia 7, Pennsylvania, each $2.50) tell the stories of rail and ocean transportation from the beginning, with excellent photographs.

You and Atomic Energy and **You and Space Travel** by John Lewellen (Children's Press, Inc., Jackson Blvd. and Racine Ave., Chicago 7, Illinois, each $1.50) are simple, clear explanations of discoveries and goals in each of these areas of research. Splendid illustrations.

The Baseball Reader, compiled by Ralph S. Graber (A. S. Barnes & Co., 232 Madison Ave., New York 16, New York, $3.50) brings together the best baseball stories of Damon Runyon, Paul Gallico, Heywood Broun, Zane Grey, and other great sports writers.

For those who like real-life stories out of America's past, get **Jedediah Smith, Fur Trapper of the Old West** by Olive Burt (Julian Messner, Inc., 8 W. 40th St., New York, New York, $2.50); **Chanticleer of Wilderness Road,** the life of Davy Crockett by Meridel Le Sueur (Alfred A. Knopf, Inc., 501 Madison Ave., New York, New York, $2.50). Another perfectly grand book is **Lincoln's Little Correspondent,** by Hertha Pauli. It's the story about Grace Bedell, the little girl who convinced Abraham Lincoln to grow whiskers. (Doubleday & Co., 575 Madison Ave., New York 22, New York, $2.50.)

And now, for good any-time reading for the pickaback and heap-big-chief bunch: **The Better Homes & Gardens Story Book** (Meredith Publishing Co., Des Moines 3, Iowa, $2.95) is a world in itself, that most wonderful of worlds inhabited by Peter Rabbit, The Little Red Hen, Little Black Sambo, and the Elephant's Child discovered by Rudyard Kipling. There are 50 child classics in this 8x10-inch volume, each with the original illustrations in color. And, because every small owner will insist on keeping it alongside his or her bed, it has a heavy plastic cover, durable binding.

Pussy Willow, a new Big Golden Book (Simon & Schuster, $1.50) has 14-inch color pictures by Leonard Weisgard that are some of the most gorgeous nature studies of birds, flowers, animals, and fish I have seen. The pages would make splendid wall decorations for the 3-year-old's room. The short, simple story of the blue-eyed kitten's search for pussy willows is by Margaret Wise Brown.

Farm Friends and Ugly Duckling, with illustrations by Katherine Evans and Phoebe Erickson (Children's Press, Inc., $1) is another beautiful collection of oversize paintings, in color.

The Littlest Angel by Charles Tazewell (Children's Press, Inc., $1) has come to be considered a Christmas classic. Its recital of the woes of the pug-nosed, freckled "littlest angel" in Paradise and the wonderful gift he brought the Christ Child is a moving experience for young and old any day of the year.

For small folks' play hours, they'll amuse themselves with—and learn a lot from: **Try It Just for Fun,** a book of things to do (Henry Holt & Co., 257 Fourth Ave., New York, New York). There's one for girls and one for boys. Or from (Simon & Schuster, 50 cents each); **The Foldaway Farm,** a push-out farm complete with buildings and stock in durable colored cardboard (Garden City Books, 575 Madison Ave., New York, New York, $1).

Finally, next time you're in town look at **The Illustrated Golden Dictionary** (Simon & Schuster, $3.95). It contains 2,120 pictures, maps, and diagrams in color, and 7,500 word definitions. **END**

The lady who won the $10,000 check at the Grand National Bake-Off in New York: Mrs. Elizabeth Sawdo of Sturgeon Bay, Wis.

$10,000 Winner

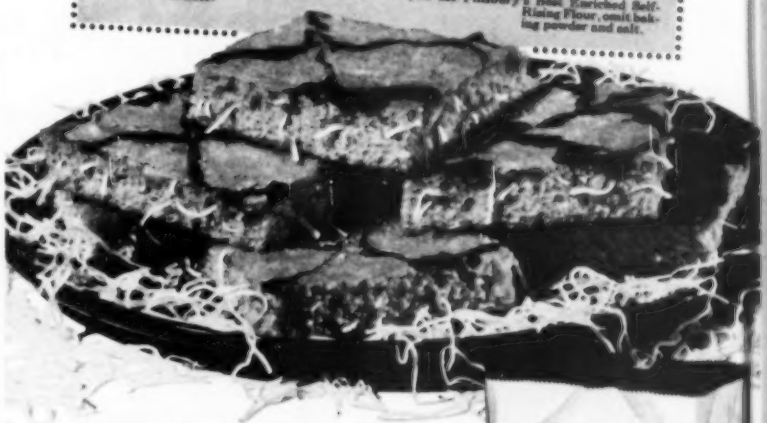
NEW COCONUT BARS' RECIPE from Pillsbury's Grand National Baking Contest

CHOCOLATE MARBLE BARS
made with Durkee's new Stayfresh Coconut

BAKE at 375° F. for 25 to 30 minutes
MAKES about 4 dozen bars

Sift together: 2 cups sifted Pillsbury's Best Enriched Flour*; 1 teaspoon double-acting baking powder; ½ teaspoon salt
Melt: 2 squares (2 oz.) chocolate with ¼ cup sugar and ½ cup hot water in top of double boiler. Cool.
Cream: ¾ cup shortening; add gradually ¾ cup sugar; 1 cup firmly packed brown sugar, creaming well.
Blend in: 3 eggs, one at a time. Beat for 1 minute.
Add: sifted dry ingredients; 2 tablespoons milk; mix well.
Blend in: 1 cup Durkee's Stayfresh Coconut; 1 teaspoon vanilla
Spread: batter in well-greased and floured 15x10-inch shallow pan or two 9x9x2-inch pans.
Pour: chocolate mixture in a thin stream over batter in pan in a close diagonal pattern. Then cut through batter with knife to give marbled effect.
Bake: in moderate oven (375° F.) 25 to 30 minutes. Cool. Cut into bars or squares.

*If you use Pillsbury's Best Enriched Self-Rising Flour, omit baking powder and salt.

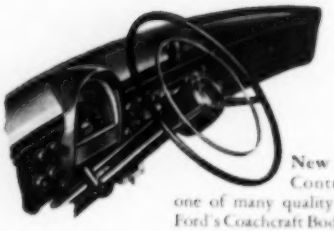


This old family recipe makes such wonderfully crisp and delicious coconut bars that it won $10,000 for Mrs. Sawdo. It's yours for free to surprise your family with tonight.

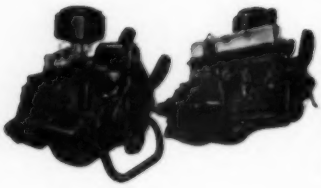
One secret of its success is that the recipe calls for the new coconut that *doesn't dry out*—Durkee's *Stayfresh* Coconut. Stays fresh twice as long as coconut ever did before.

Durkee Famous Foods ©

DURKEE'S
NEW **STAYFRESH**
COCONUT
the only coconut that doesn't dry out—



New Flight-Style Control Panel—one of many quality features of Ford's Coachcraft Bodies—blends into the doors in a sweeping curve. Controls are easier to reach, instruments easier to read.



New higher compression in both the new 101-h.p. Mileage Maker Six, with overhead valves, and in the 110-h.p. Strato-Star V-8! And both have the Automatic Power Pilot so they deliver all their "go" on "regular" gasoline.

New Full-Circle Visibility really lets you see where you're going and where you've been. You have the safety advantages of a huge one-piece windshield and a car-wide rear window plus side windows that are picture-window big.

New Power-PivotPedals are suspended from above! They're easier to operate. They give the driver more foot space, eliminate drafty holes in the floor.

Ford's first with the newest!

It's the Ablest Car on the American Road

That rear window is as wide as the car.

Makes it easier to park.

"Test Drive" it today at your Ford Dealer's.

Once again Ford's *first* with the newest in its price class!

The 1952 Ford is available in more models and in more color and upholstery combinations than any other car in its field. In addition, it is the only low-priced car to offer three drives: Fordomatic, Overdrive, and Conventional. Your Ford Dealer invites you to "Test Drive" a '52 Ford today. You'll agree it's the ablest car on the American road! You can pay more, but you can't buy better!

Ford's new Center-Fill Fueling cuts down spillage.

New Center-Fill Fueling makes gassing-up convenient from either side of the pump. With no long filler pipe in the way, the luggage compartment is a suitcase bigger. And the rear license plate is spring-mounted to conceal the gas cap!

White sidewall tires (if available), Fordomatic, and Overdrive optional at extra cost. Equipment, accessories and trim subject to change without notice.

"Syndets"—from dishpan to feedlot

Synthetic detergents (syndets) may prove as helpful in the hog yard and poultry house as feed as they are in household cleaning

Experiments on poultry and swine with surface-active agents (synthetic detergents) have given results that may open the door to the use of a whole new series of compounds as animal-growth stimulants.

Although the experiments are few in number as yet, indications are that there is something in these surface-active agents which does the same job as antibiotics—produces faster, cheaper gains.

But don't go borrowing your wife's dishwashing compound yet. There are still many unanswered questions about the feeding of surface-active agents.

Tests of one surface-active agent at the Michigan Agricultural Experiment Station gave good results. The test was on hogs. Here's what happened:

A well-balanced ration was fed to four lots of pigs, with variations, to test the detergent-like material. One group of pigs got only the well-balanced ration. Another group got the basic ration, plus 0.1 percent of the detergent-like material.

A third group of pigs got the basic ration with an antibiotic at the rate of 5 milligrams per pound. And the fourth group got the basic ration, plus a mixture of 0.1 percent of the detergent-like substance, plus an antibiotic at the rate of 5 milligrams per pound.

The pigs that received the basic ration alone gained 0.95 pound, or almost a pound per day. This is about an average gaining weight. These pigs ate 3.18 pounds of feed a day and put on a pound of gain to 3.36 pounds of feed.

The lot fed the surface-active agent gained 1.29 pounds a day. They ate 4.07 pounds of feed a day and produced a pound of meat with 3.15 pounds of feed.

The antibiotic-fed pigs gained 1.28 pounds a day, or about the same as the pigs getting the detergent-like material. With antibiotics, the pigs ate 3.88 pounds of feed a day and ate 3.05 pounds per pound of gain.

The pigs that got both the detergent-like product *and* antibiotic gained *less* than the lots that got only one of the materials. They gained 1.19 pounds a day. These pigs ate 4.16 pounds of feed per day and had the poorest rate of making feed into gain—3.49 pounds of feed per pound of gain.

The test showed that pigs given the "syndet" in their ration made a 35.8-percent increase in growth over those that received the basic ration alone.

The Michigan State College research workers say there seems to be no adequate explanation at the present time for the growth-promoting properties of detergent-like materials.

There are many synthetic detergents available today, but only a few have been tried as additions to feed. Further research is planned to study the properties of these many different synthetic detergents and their relation to growth stimulation.

In poultry, Dr. C. M. Ely, Research Division, National Distillers Products Corporation, reports that feeding a surface-active agent gave positive results in 60 out of 63 trials. However, as in swine, very few tests have been run.

It's too early to tell just how this new discovery will affect feeding methods. Many of the detergents contain material that would actually be harmful to animals. Farmers are warned not to begin using any detergent-like material in their feeds at this time.

Is farm credit tightening?

With farmers called upon to produce more, with costs up, prices down, what about farm credit?

Maybe you've met trouble in refinancing last year's loans—or in getting more to carry this year's new production costs. Maybe you've heard about farmers pressed by their bankers to sell 150-pound hogs or light steers.

Loans are tightening up in some farm localities, *but by no means in all.* Here are some of the reasons: For many persons starting farming, this past decade has provided easy credit, eager markets, and extra inducements to production. Now, for the first time, a bad year like 1951 finds some unable to meet their short-term loans—and faced with needing more cash for 1952. At the same time, although deposits in our country banks are down, there's *more* money out on loan than previously. This makes the balance between deposits and loans—in some cases—slightly out of line. And with state bank examiners pressing to maintain the balance, here's a "crutch" for those bankers who feel it's time to pull in their credit.

Many bankers we've talked to, on the other hand, are all set to recognize last year as a *temporary* setback and go along with their farm customers as usual. They're firmly convinced that farm loans are productive loans; that *good operators are always a good risk.*

According to some, any contraction of credit now may actually be a natural and a healthy thing. It will make us stop, look, and listen, and keep our thinking straight. The year 1951 *can* serve as a well-timed preview to put farm operators on their toes—and on a business basis.

Credit men agree that a man who operates his farm on sound business principles will always be able to get all credit he needs for legitimate expenses.

Only **COLGATE DENTAL CREAM**

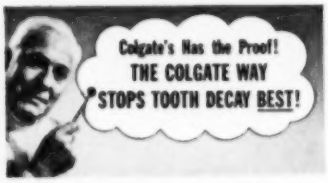
HAS PROVED SO COMPLETELY IT

STOPS BAD BREATH*!

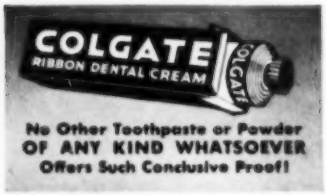
*SCIENTIFIC TESTS PROVE THAT IN 7 OUT OF 10 CASES, COLGATE'S INSTANTLY STOPS BAD BREATH THAT ORIGINATES IN THE MOUTH!

For "all day" protection, brush your teeth right after eating with Colgate Dental Cream. Some toothpastes and powders claim to sweeten breath. But only Colgate's has such complete *proof* it stops bad breath.*

Colgate's wonderful wake-up flavor is the favorite of men, women and children from coast to coast. Nationwide tests of leading toothpastes *prove* that Colgate's is preferred for flavor over all other brands tested!



Yes, science has proved that brushing teeth right after eating with Colgate Dental Cream stops tooth decay *best!* The Colgate way is the most thoroughly proved and accepted home method of oral hygiene known today!



Get* PURE, WHITE, SAFE COLGATE'S *Today!

The farmer's Washington

By Richard Wilson

- **Will the farm lobbies be investigated?**
- **Big money is spent to influence legislation**
- **Some lobbyists are fakers—but live in style**

Farm lobby. There are hints of a new investigation at the capitol. But there's no hurry. The situation to be investigated will still exist whenever the inquiry begins—and, for that matter, a long time afterward.

This would be an investigation of lobbying. Not the least of all the lobbies operated in Washington are the farm lobbies. Congressmen are talking of taking a look at the full scope of these sometimes useful, sometimes sinister, but always-to-be-with-us activities.

Here is a case where Congress already has more information than it knows what to do with. Under law, lobbyists have been required to file reports for several years, and they have been doing so. Thousands of pages of reports have piled up. Maybe it is time to take a look at them.

Examples. A random look through the reports shows, for example, that the American National Cattlemen's Association spent $29,129.84 last year to influence legislation. This was nothing compared to the Association of American Railroads, which spent $237,000. Nor did it compare with the lobbying activities of an organization called the "Atlantic Union Committee," which spent $158,000 in its efforts to put across internationalist legislation.

Some names not particularly well known turn up. A. R. B. Bowden of Washington and St. Louis reported he got $4,500 in the last quarter of 1951 for having an interest in the "equal taxation of cooperatives."

But, in comparison, it was shown that a New York public-relations firm received from a single liquor distributor more than $80,000 in 1951 for lobbying against increased excise taxes on liquor.

And, an organization called "The Committee on the Present Danger" laid out more than $100,000 for lobbying aid for Europe through Congress.

The Farmers Union reported it *received* $183,366.50 for the last quarter of 1951 for promoting the interests of farmers. But it didn't specify exactly what its lobbying activities were nor what it spent for them.

Scope. Eighty-one persons or organizations registered to lobby on behalf of farmers or on some farm-connected matter. To find out what one of the biggest organized and registered lobbies does, it is necessary to go back to the 1950 report. The details were left out of the 1951 report made by Congress.

This organization is the American Farm Bureau Federation. It reported that it *received* $170,000 in the last quarter of 1950 and had expenses of $156,000. The Farm Bureau said "it performs no lobbying service for any person for the purpose of influencing legislation in any way." Then the report added, "There are certain of its officers and staff members who do make contacts with members of the United States Senate and the House of Representatives. These persons are on a monthly salary basis. They receive no contributions or gifts from other persons and perform no lobbying service for any person other than their employer, namely the American Farm Bureau Federation."

Allan B. Kline, national Farm Bureau president, also registered separately and said he got $5,000 in the last quarter of 1951. Another "lobbyist," Charles W. Holman, of the National Milk Producers Federation, said he received $4,125 in the last quarter of '51. No disclosure was made in the report on James G. Patton.

What do they do? Some so-called lobbyists operating in Washington take credit for things they do not do, or try to impress their clients that they are "big shots." But they don't have much to go on. The classic example is of the lobbyist who wrote to his client, "Had lunch today with Vice-president Barkley. He said," and so on. The lobbyist had actually attended a luncheon with 400 other persons when Barkley spoke at the National Press Club.

Beneath this false-front lobbying, however, there is much bedrock work going on of a very practical and profitable nature. Take, for example, the matter of baler twine. The Brantford Cordage Co., Ltd., of Ontario, Canada, saw a market in the United States for baler twine, as well it might. It retained Donald D. Hogate in Washington to help it get such a market. Mr. Hogate went to work and helped persuade Congress to amend the tariff act of 1930 to permit free importation of baler twine. For this he received $2,000 in the last quarter of 1951. But it was *not* reported by Congress what he may previously have received or would receive in the future for this service.

Long-range lobbying with inconclusive results often proves profitable. We find, for example, that one Richard Gonzales got more than $4,000 last year for fanning up interest in legislation encouraging the organization of farm labor.

W. R. Noble reported he received

[*Turn to page 18*

FOR EVERY ADDITIONAL CAR THE OIL INDUSTRY PUTS UP $500

YES, for every car you add to those already on the road—someone in the oil industry must invest more than $500 in new facilities. It takes that much money to provide the producing, refining, and distributing equipment to keep one additional car rolling. And it is a staggering total when you consider that last year the number of cars in operation went up about 2,400,000—to say nothing of additional trucks, busses, tractors, oil burners, etc.

No government subsidy enters into paying the cost of the new facilities to handle this new business. This cost is met by the oil companies themselves—the sound, profitable, going concerns—both large and small. Since World War II members of the industry have spent over 12 billion dollars for new equipment.

During the same period Standard Oil and its subsidiary companies have spent over one billion dollars in this way. An important part of this money has come from re-investment of two-thirds of its profits for new tools and equipment in a vast expansion program.

This investment has also provided research facilities for product improvement. It has provided more and better jobs. In turn, it has yielded new profits that help Standard Oil add to the progress of the industry.

By putting a major part of our earnings back in our business, we are making sure that you will get still more and still better oil products in the future. You will get them even if your requirements should become far, far greater. And you will get quality goods at reasonable prices.

Investment of $500 in new facilities for every additional car that goes on the road thus yields returns both to us in the industry—and to you, our customers.

IT TAKES A LOT OF MONEY to find oil these days. The cost of finding oil in the ground is now several times greater, per barrel found, than ten years ago. A "wildcat" drilling operation can represent fifty to a hundred thousand dollars, sometimes runs over a million dollars. Yet America's oil reserves are at an all-time high. We have shared in making this possible through re-investment, in the past several years, of two-thirds of our profits to help provide necessary new facilities.

IT TAKES A LOT OF MONEY to move crude oil from the well to modern refineries and refine it into more than 2,000 petroleum products. Alvin R. Jones, of our Neodosha, Kansas, refinery works on a cracking unit, a part of refining equipment costing millions of dollars. The modern tools and equipment with which our employees work, provided in large part by reinvested profits, help our employees produce more, earn more and enjoy steadier employment.

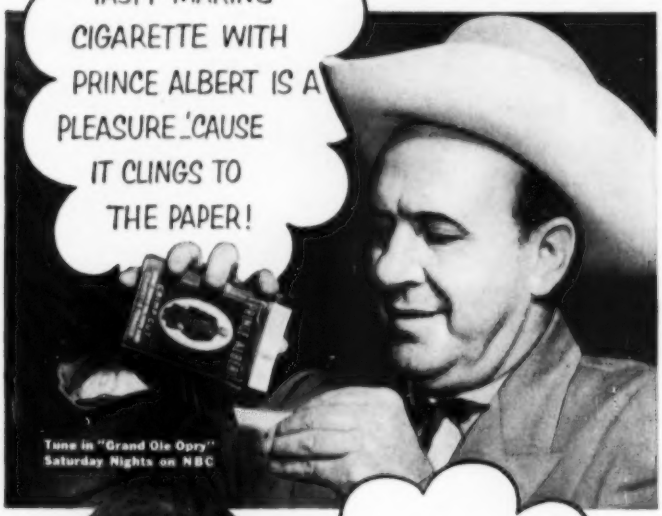
IT TAKES A LOT OF MONEY to keep up with the distribution problems which must be solved to bring you fine petroleum products through Standard Oil agents like Dan Dowhower of Inkster, North Dakota. He, and thousands of other Standard Oil agents, provide the products you want, where and when you want them. And gasoline today is one of your biggest bargains. It sells at 1925 prices (only the tax is higher)—yet two gallons today do the work that then took three.

Standard Oil Company (INDIANA)

"Prince Albert sure rolls fast and easy!"

"Moon" Mullican

WELL-KNOWN FOLK SINGER AND "GRAND OLE OPRY" STAR

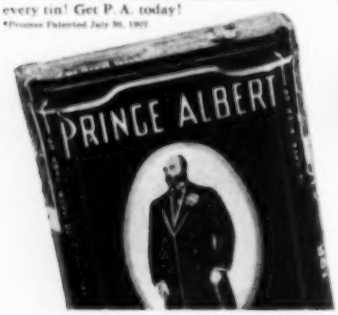


COOL-SMOKING P.A. IS THE PIPE TOBACCO FOR ME_AND I'VE TRIED JUST ABOUT ALL OF 'EM!

Harvey Keiper

PRINCE ALBERT is specially treated by the patented* "No-Bite" process to insure you against tongue bite. *The Bite's Out – and the Pleasure's In!* There's more tobacco in every tin! Get P. A. today!

*Process Patented July 30, 1907



MORE MEN SMOKE

Prince Albert

THAN ANY OTHER TOBACCO

R. J. Reynolds Tobacco Co., Winston-Salem, N. C.

Farmer's Washington

[*From page 16*]

$3,375 during 1951 for keeping the National Retail Farm Equipment Association informed on legislative matters in their line.

The meat packers, the co-ops, the cotton people, the milk producers are all active. Hundreds of thousands of dollars are being spent every quarter to influence farm legislation. But, all in all, this activity really doesn't hold a candle to the high-pressure lobbying going on in other fields.

Opening up loopholes in the tax laws is unquestionably one of the most rewarding forms of lobbying in the capitol. Sometimes it is done by organizations, but more often than not, a corporation which can afford it retains counsel in Washington to work directly with members of Congress. The purpose is to put through some small, unnoticed amendment which may mean millions of dollars in federal taxes saved over the years by the corporation.

Farmers, on the whole, work through organizations. But they get their tax concessions, too, such as resulted from the recent fight over taxing cooperatives, and the breeding-stock amendment in the income-tax laws. It is noticeable also that no attack is ever made on the favorable tax treatment enjoyed generally by farmers.

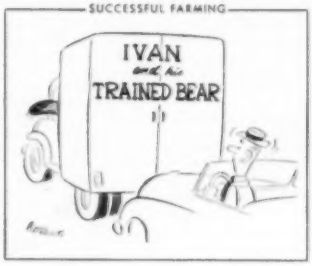
A good business. For many former government officials in Washington, lobbying is a very profitable profession carried on in grandeur and style. Senator Hayden (Democrat, Arizona) reported to the Senate that during 1951, 40 persons received more than $50,000 for their lobbying activities. The pay ranged this way: 170 got $5,000; 144 got between $5,000 and $10,000; 73 got between $10,000 and $15,000; 37 got between $15,000 and $20,000; 21 got between $20,000 and $25,000; 22 got between $25,000 and $35,000; 18 got between $35,000 and $50,000.

Former senators, former government officials of all kinds participated in the "take." Some of the lobbyists lived in very high style, with large and richly furnished homes. Some gave lavish parties to which many high officials were invited.

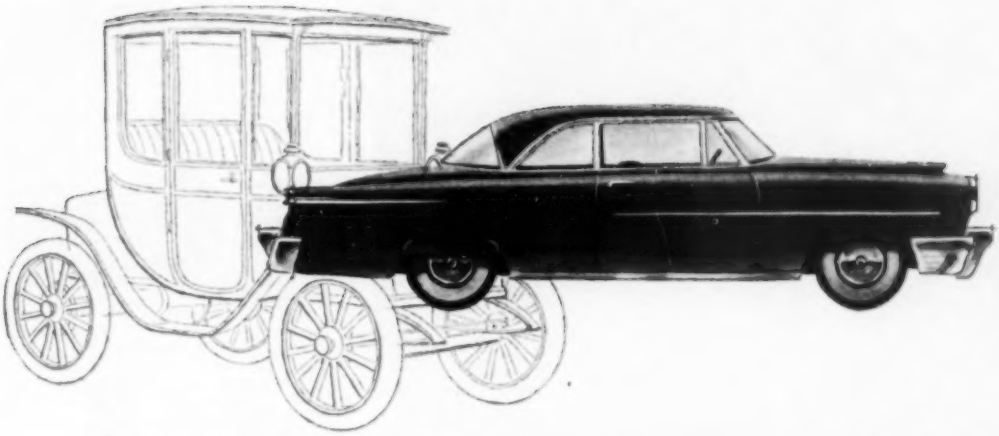
Investigation? Why isn't there an investigation, asked Senator Maybank (Democrat, North Carolina). "Everyone else is being investigated except the people who harass us to earn their living."

"There are so many investigations now under way," replied Hayden, "that I do not know whether we ought to add any more expense for that purpose." **END**

SUCCESSFUL FARMING



1902 50th Anniversary 1952



A reputation for dependability born 100 million batteries ago

Fifty years and 100 million batteries ago, Willards started to prove their dependability. They were first used to put the spark of life into chattering telegraph systems. Train lighting and railway signal systems depended on them, too.

Willard dependability, proved in those early days, was put to good use by pioneers in the automotive industry. First, Willard batteries powered the sedate all-electric auto. And when the gas powered horseless carriage came into its own, manufacturers picked Willard to provide safe, clean, efficient lighting. Then, at the birth of the electric starter, Willard helped to put the crank out of business.

Some of those early Willard customers are *still* in business, and they *still* use Willard batteries as original equipment. Year after year Willard supplied more manufacturers for original equipment than any other battery maker...and will again in 1952. Willard dependability is recognized by car owners, too. National surveys show that more car owners prefer Willard than any other brand. For dependable power in any weather see your Willard Dealer soon . . . look for his name in the yellow pages of your phone directory.

WILLARD STORAGE BATTERY COMPANY

Factories in: Cleveland • Los Angeles • Dallas • Memphis • Portland • Allentown • Toronto

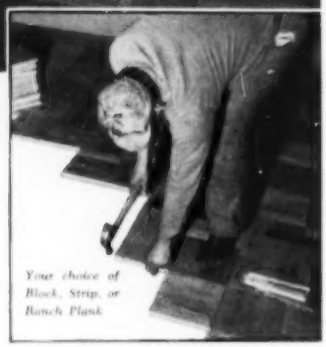
Today, the Willard Super Master provides 80 to 119% more starting power at zero than required by S.A.E. New Metalex grids give 100% more protection against overcharging. Other Willard Batteries for every car and budget. Prices start at $17.50 less liberal allowance for your old battery.

Famous Firsts pioneered by Willard during its first 50 years . . . **1902** Sparking Batteries for ignition systems. **1906** One-piece rubber containers. **1908** Electric lights for automobiles. **1909** Batteries for Electric Starters. **1913** First Battery Service Station. **1917** Thread Rubber Insulation and Non-Spill Aircraft Batteries. **1918** Charged Bone Dry Batteries. **1921** Radio Storage Batteries. **1930** The Willard "110." **1934** Low Discharge Batteries. **1938** Willard "Safety-Fill." **1941** Electrical Check, Plastic Batteries, Charge Preserver. **1949** Greater starting power and Metalex Grids for protection against overcharging. **1951-52** New, more powerful, popular priced batteries.

Willard

NEW PREFINISHED FLOORING MAKES IT EASY TO HAVE

Beautiful Oak Floors



Your choice of Block, Strip, or Ranch Plank

Just lay Prefinished Bruce Oak Flooring right over your old floors . . . no sanding or finishing

Now you can give your home new beauty at low cost with a *prefinished* Bruce Hardwood Floor. Completely finished at the factory with the famous Bruce "Scratch Test" Finish, this highest quality oak flooring can be nailed right over old floors. It's ready to use as soon as laid. No messy, expensive sanding and finishing on the job.

Naturally beautiful—It's the most beautiful, most durable floor you've ever seen. The warm, natural coloring of superbly finished oak harmonizes with any room furnishing plan. You have your choice of three lovely designs: modern Bruce Block (parquet) as pictured above . . . distinctive Bruce Ranch Plank with walnut pegs . . . or ever-popular Bruce Strip.

Moderate in cost—A new Bruce Hardwood Floor will cost you less than a good rug or carpet. Easy to keep clean and beautiful, too. It's just the thing to use in fixing up or adding a room, and there's nothing finer for a new home. Ask your lumber dealer for cost estimate. Mail the coupon below for literature with room photos in color.

MAIL COUPON FOR LITERATURE

E. L. Bruce Co., 1646 Thomas St., Memphis 1, Tenn.

Send me color folder on Bruce Hardwood Floors

☐ for installation over old floors ☐ for a new home

Name _____

Address _____

City & State _____

BRUCE HARDWOOD FLOORS

Successful Farming formula for better decorating

For several years the editors of *Successful Farming* have realized the growing interest in home furnishings and have presented more articles on decorating than any other farm publication. Hundreds of photographs of farm homes have appeared, plus sketches and drawings designed to show you how to decorate your home and keep "up to the minute" on new furniture designs and developments.

In addition to this, scores of books and pamphlets have been written and made available from many sources telling you how to select colors and fabrics and including a lot of generalized information on decorating. But too many of them are highly technical, written in language only a professional decorator can understand. This makes it hard for the woman without specialized training to analyze and apply the important decorating principles. To make this problem easy for you, *Successful Farming* has evolved a clear-cut formula for choosing the correct colors for your home. In a series of articles starting in September, charts will be included to guide you in selecting patterned fabrics, floor coverings, and wallpapers. These charts and articles will take all the guesswork out of your planning. They are so simple and easy to understand that decorating your home will be the most satisfying and exciting experience you have ever had!

There are many reasons for this increased awareness of home decorating—but perhaps the most important is the marked change in our living habits which is being reflected in today's homes. The new house has larger and fewer rooms than those built 10 or 20 years ago; rooms that serve two or even three purposes. Due to the use of large amounts of glass, there are fewer walls against which furniture can be arranged. This makes it impossible to arrange furniture the way we are accustomed. Since there are fewer and lower dividing walls, several rooms can be seen at once—making it important that colors harmonize from one room to another. As a result, we have begun looking at *all* houses as whole units, not as groups of unco-ordinated rooms.

This change is also mirrored in the furniture you see on display in your neighboring town. Upholstered furniture is standing on legs; tables and chairs have grown wheels and lost weight so they may be moved about with ease. Like the rooms in the new houses, furniture is being designed to perform more than one duty.

In planning your decorating—in striving for the "right" color scheme, the "perfect" print, or the "ideal" piece of furniture, very few of you have a decorator's services available, so you have to do it yourself. If you are interested in making your home more beautiful and in doing it the simple, *sure* way, watch for the first article of the *Successful Farming* decorating series in September! **END**

Farmers Everywhere Prefer FIRESTONE...and THERE ARE MORE FARM TRACTORS ON

Firestone TIRES

THAN ANY OTHER MAKE

"I can always depend on Firestone Tires. They're the best all-around tires a farmer can use."
GLENN STOUFFER
Meadow Grove, Nebraska

"With 550 acres to farm, I have plenty of opportunities to judge tractor tires. Firestone Tires are the best money can buy."
LEAF LARSON
Vermillion, South Dakota

"I have used Firestone Tires for 15 years. I'll stick to Firestone until somebody shows me another tire that will do a better job."
EARL R. THOMPSON
Richland, Michigan

"For more than ten years, I have been using Firestone Tires. They have more pulling power than any other tractor tire."
RICHARD PAPPE
Union City, Oklahoma

IT'S the *extra values* of Firestone Champion Tires that make them so popular with farmers everywhere. Only Firestone Tractor Tires give you all these advantages for today's farming needs.

Curved and Tapered Bars for a sharper, deeper bite.
Flared Tread Openings to prevent soil jamming.
Wide, Flat Treads for greater traction power.
Dual Shock Protectors to absorb severe impacts.
Open Center or Traction Center—take your choice.

Stop in at your Firestone Dealer or Store and let them show you why farmers prefer the better all-around performance and pulling power of Firestone Tractor Tires.

When You Order a New Tractor or Other Farm Equipment, Specify Firestone Tires

Firestone Put the Farm on Rubber

FIRESTONE TIRES ARE *FIRST* WITH FARMERS TODAY

Enjoy the Voice of Firestone on radio or television every Monday evening over NBC

Copyright, 1952, The Firestone Tire & Rubber Co.

SCANDINAVIAN AIRLINES SYSTEM

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"PENNYWISE" TOURS*

BIGGEST EUROPEAN TRAVEL VALUES FOUND ANYWHERE!

*Tourist Flights effective May 1st. Tempting, budget-priced meals available.

MANY OTHER "PENNYWISE" TOURS TO CHOOSE FROM. FOR COMPLETE DETAILS, MAIL THE COUPON BELOW!

See your Travel Agent, or call

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ONE OF THE WORLD'S LARGEST AIRLINES

New York • Chicago • Seattle • Minneapolis
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30 Rockefeller Plaza West, New York, N. Y.
Please send me free, full story on SAS "Pennywise" Tours to Europe.

NAME _____

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STATE _____

Come and see for yourself

The barn on the map above shows the location of the May 19 Doane Field Day

Part of the crowd attending the February 14 Doak Field Day is shown at right

If you haven't already done so, make plans now to attend the May 19 Field Day at D. Howard Doane's farm, McCredie, Missouri. The Field Day is being sponsored by Mr. Doane and the editors of *Successful Farming*.

The Doane Field Day was first announced in the March issue of *Successful Farming* in connection with an article describing Mr. Doane's method of producing high-quality beef at low cost. This system depends entirely on pasture and a little hay to produce good beef gains. The only harvested feed the steers received in last year's test was 756 pounds of hay per steer. All other feed was harvested by the steers themselves on the different types of pastures on the Doane farm.

In the test reported in the March issue of *Successful Farming*, the best steer gained 380 pounds in 161 days under this system of beef raising!

At the Field Day May 19, you will see another steer-feeding test under way. The test you will see is identical to the one described above. On May 19, the steers on this year's test will be on pasture. You will have the opportunity to talk to Mr. Doane and ask him questions about his beef-raising system. You will also have the chance to see the different types of pasture which are the keys to the success of this system. Too, you'll see some of Mr. Doane's laborsaving gates, cattle guards, and buildings.

The May 19 Field Day is the second of its kind to be announced by *Successful Farming*. The first of these Field Days took place February 14 at the J. Herbert Doak farm, Wilmington, Ohio. In spite of extremely icy roads, 1,100 interested farmers were on hand and spent the afternoon looking over the hogs, buildings, and equipment at the swine farm.

Mr. Doak was on hand to answer questions. Farmers from nine different states were in attendance. Some of these farmers traveled more than 500 miles to be present for the Field Day.

It would be helpful if you could send a card stating that you intend to come to the Doane Field Day and how many friends you are bringing with you. Send your card to Mr. D. Howard Doane, Grassland Farm, McCredie, Missouri. If you are flying to the Field Day, the airport at Columbia can service your plane. *If you are flying, please send us a card so that transportation from the airport to the farm can be arranged for you.*

The Doane farm is located 27 miles east of Columbia, Missouri, on U. S. Highway 40. Signs will direct you to the farm. Overnight accommodations are available in Columbia, Missouri. Here are some of the accommodations available: The Tiger Hotel, Daniel Boone Hotel, Mizzou Tourist Court, El Don Tourist Court, and the All-States Tourist Court. For a further list of accommodations, write the Columbia Chamber of Commerce.

We will be looking for you at the Doane farm May 19. The Field Day begins at 12:30 p.m. **END**

Many folks plan to attend in groups organized by their county agent, vocational-agriculture instructor, or their neighboring farmers. Check these sources in your community to see if such a group has been organized. If not, perhaps you can start a group yourself.

SEABROOK FARMS plants 2,000,000 pounds of field tested seed each year.

A large fleet of tractors is maintained for plowing, disking and cultivating operations on Seabrook Farms 19,000 acres.

Specially engineered equipment automatically harvests the crop—vines and all—and loads it into trucks. The produce is then hauled to field stations where the vegetables are removed from the vines.

Unloading part of the vast fleet of trucks used by Seabrook Farms to shuttle vegetables from the fields to the processing plant.

Seabrook Farms, gleaming, automatic machines fill cartons with washed and blanched lima beans.

The Heart of the World's Largest Vegetable Farm and Freezing Plant!

The 17 million dollar annual vegetable crop of Seabrook Farms in southern New Jersey may be accurately described as a miracle of modern assembly-line agriculture.

Taking produce from 50,000 acres, 19,000 of which are company operated, it produces 15% of the total frozen vegetables in the nation.

The largest operation of its kind in the world, Seabrook is probably the only farm in existence that grows, processes, quick-freezes and transports to distributors its own crops.

In operating this fabulous enterprise, a high degree of mechanization is essential, particularly at peak seasons when huge floodlights are used to make round-the-clock harvesting possible.

Over 600 engines in cars, trucks, tractors, stationary engines and other self-powered farming equipment must be, and remain, on the job. In this vast fleet—including eight planes for crop dusting—every service item must obviously meet the most rigid and exacting standards.

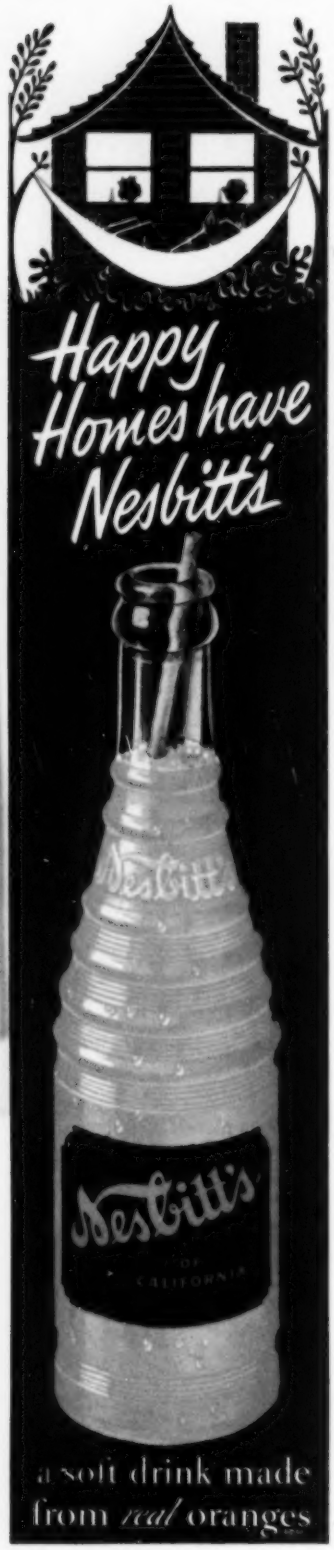
"In production line farming dependable spark plugs might well be called the heart of our everyday operation," says Mr. Joseph Franco, Seabrook's Superintendent of Maintenance. "We require the utmost dependability from them because we cannot tolerate delays, let alone failure of any engine. We have used Champions exclusively for years because they insure the utmost in performance, economy, dependability."

The Sign of Dependable Service!

FOLLOW THE EXPERTS

DEMAND CHAMPION SPARK PLUGS FOR EVERY FARM ENGINE

CHAMPION SPARK PLUG COMPANY, TOLEDO 1, OHIO



What's new in homemaking

"Kangaroo" paintbrush, a tidy trick for home decorators, is a regular 2-inch size brush with a ½-inch one tucked inside! No need to stop to change brushes on the job to finish moldings, window frames, quarter rounds, and corners.

Just press the button and push out the little brush all filled with paint and ready to go. A special gasket prevents paint from leaking through handle. The handle is made of rock maple; the brushes of China hog bristles. Can be had for $1.95, postpaid.—*Kangaroo Brush Company, 3836 Spring Garden St., Philadelphia 4, Pennsylvania.*

Colored freezer tape not only seals the wrappings on frozen foods to help prevent drying, but also helps to identify them! Tapes in assorted colors make it possible to "code" your packages as they are wrapped. Using red tape for beef, blue for pork, tan for poultry, for example, makes it easier to find what you want in your freezer or locker. A special adhesive on the tape makes it stay "stuck" in zero temperature, and it can be applied with-

out moistening. Each roll is ¾ inch wide, 25 feet long. A package of three rolls (one of each color) costs 98 cents. Sold by super markets, department and hardware stores.—*Mystik Adhesive Products, 2655 N. Kildare Ave., Chicago 39, Illinois.*

Folding doors save space, add beauty, and provide privacy in any part of the home. Either pairs or singles can be ordered to fit any size of opening. Strong, rust-resistant metal frame is covered with washable vinyl plastic. Choice of 23 colors and designs is available—or one's own fabric may be used. Quick to install, the doors operate smoothly, folding evenly at both top and bottom. Available from

Modernfold Doors distributors locally, or inquire of *New Castle Products, New Castle, Indiana.*

A rotary cabinet that brings chinaware, bowls, and ingredients within easy reach at the slightest touch is made for wall installation. Three circular shelves, each 22

inches in diameter, are welded to a center post which turns smoothly on a ball bearing. An upturned flange on each shelf and a shield at the back keep items from falling off. Cabinet measures 25 inches along each wall and is 30 inches high. Baked-on white enamel finish is easy to clean. Can be used in a corner between two lines of cabinets, or by itself to turn wasted space into a valuable storage area. Curved door swings wide on concealed hinges. Positive-action catch snaps easily. Chrome handle is centered at bottom of door. Sold by Youngstown Kitchens dealers.—*Mullins Manufacturing Company, Warren, Ohio.* **END**

IT'S AN HONEST-TO-GOODNESS FOOD FREEZER . . . AND A DREAM REFRIGERATOR, TOO!

The Exciting New

Cycla-matic Frigidaire

Food Freezer-Refrigerator Combined

10.6 cu. ft. Cycla-matic Imperial. Two other sizes

Note how thick, all-around insulation completely seals off freezer from refrigerator

With every important food-keeping convenience you've ever wanted

New super-safe Levelcold! No more see-saw temperatures swooping over the food safety mark—not with Levelcold! This startling new kind of cold is unaffected by kitchen or outside temperatures. The Food Freezer stays zero-zone safe—frozen foods won't thaw or mush. And the refrigerator stays safely, *uniformly* cold, top to bottom, front to back!

New super-automatic service! The new Cycla-matic system responds in a flash to weather changes and to heavy or light use . . . without setting a single dial or control. Regardless of outside temperatures, the proper cold is *always* rigidly maintained in the food freezer, and in the Cold-Wall chilling coils, as well as the Refrig-o-plate—the device which helps cool the refrigerator, and controls excess moisture.

New super-power! With the famous Meter-Miser, which provides enough reserve cold-making power to keep foods safe in hottest climates. Simple, safe, dependable, economical, this wonderful cold-maker is the simplest refrigerating mechanism ever built—and only Frigidaire has it!

Here is your Food Freezer ↑

. . . that keeps frozen foods safe for months! Here's a real, completely insulated Food Freezer—not the ordinary "freezing compartment." Keeps all your frozen foods flavorful. *Has no defrosting heating devices* to melt, thaw or "mush" ice cream or any other precious frozen foods. Everything you store in here stays pack-fresh until you use it!

Here is your Refrigerator →

. . . with wonderful new Roll-to-You Shelves! Amazing convenience! Puts more food within easy reach than any other refrigerator. Shelves slide out full-width — easily, quickly, silently. No more "lost" back-shelf foods, no tipping or sagging. Pull-out Hydrators, too—sliding utility tray—and door shelves to provide even more storage convenience!

And here is Cycla-matic Defrosting

. . . in the most automatic refrigerator made! Doubly effective! Automatically defrosts and positively controls moisture at the same time. Here's what happens. The exclusive Frigidaire Refrig-o-plate, and its refrigerated coils, attract all excess moisture within the refrigerator. Then, as the finest veil of frost appears, it's banished—like *that*—without clocks, counters, or heaters. So simple—so dependable—there's nothing else like it. And only Frigidaire has it!

Frigidaire reserves the right to change specifications, or discontinue models, without notice.

Frigidaire families live better, because Frigidaire appliances are better

Frigidaire

America's No. 1 Refrigerator

IT TAKES JUST 7 MINUTES TO HEAR THE WHOLE WONDERFUL STORY!

See your Frigidaire Dealer. Look for his name in the Yellow Pages of your phone book. Frigidaire Division of General Motors, Dayton 1, Ohio . . . Leaside (Toronto 17), Ontario, Canada.

Iron Fireman

The Iron Fireman radiant fire (with oil, gas or coal) generates *radiant* heat at grate-line level. Radiant heat cannot escape up the chimney—it strikes directly into furnace walls. All Iron Fireman equipment, for warm air, steam or hot water heating, is engineered for use with the fuel-saving radiant fire. Above, oil fired winter air conditioner.

fuel-saving RADIANT FIRE

Effortless, luxurious, dependable home comfort! That's the first thing you get when you modernize your present heating system with an Iron Fireman burner, or install a new Iron Fireman automatic furnace or boiler. *But that's not all.* These units, all with the efficient, *fuel-saving* radiant fire, give you this modern heating for less money. Iron Fireman users report 15% to 25% cash savings on fuel bills, compared with previous heating methods. It will pay you to get full information now. There's no cost or obligation.

Oil costs less than hand fired furnace says Mrs. Edith Johnson, 43 John St., Middletown, N. Y. We installed an Iron Fireman Vortex oil burner in our hand fired furnace in 1946. From former experience with oil burners I did not believe your dealer when he said our fuel bills would be no higher. Much to my surprise and amazement fuel costs have been less. I had to tell you my experience so you would understand how pleased I truly am.

OIL

Install an Iron Fireman Vortex oil burner in your present heating plant. For a new plant, see Iron Fireman furnaces and boilers with built-in Vortex.

GAS

Iron Fireman radiant gas burner converts coal plants to *efficient* gas heating. Also full line of gas fired furnaces and boilers.

COAL

Coal-Flow stoker feeds from bin; no coal handling. Install in your present plant, or see Iron Fireman furnaces and boilers with built-in Coal-Flow.

Mail coupon for booklet — or telephone WESTERN UNION, OPERATOR 25 for name of nearby dealer

Iron Fireman Manufacturing Co.
3232 W. 106th St., Cleveland 11, Ohio.

Please send booklet, "Magic of the Fuel-Saving Radiant Fire."

Name _____

Address _____

City _____ State _____

Illustrated booklet sent free

Use coupon. "Magic of the Fuel-Saving Radiant Fire" describes Iron Fireman oil, gas and coal heating equipment for warm air, steam, hot water and radiant panel systems.

AUTOMATIC FIRING FOR HOMES, BUILDINGS, INDUSTRIAL PLANTS

Goal 100 bushels; they got 154

Determined to produce 100 bushels of corn per acre in 1951, Clarence Rider and son, Glen, Vernon County, Missouri, farmers, concentrated effort and fertilizer on a 2-acre test plot on their farm. The resulting yield of 154 bushels per acre probably set an all-time record for their county, according to James McCall, county agent.

After soil tests, the Riders plowed down 400 pounds of 0-48-0 with a fertilizer attachment on the plow. Then 200 pounds of 4-12-4 was applied in the row at planting time. When corn was waist-high, they side-dressed it with 200 pounds of 33-percent ammonium nitrate to the acre with a cultivator attachment.

Stalk count in the 38-inch rows ran about 16,000 to the acre. This is approximately 4 plants in 36 inches. Fertilizer costs totaled $60 for the 2-acre plot.

YOUR CHANCE TO QUIZ THE CANDIDATES FOR PRESIDENT

As announced in March, *Successful Farming* will select questions from its readers to ask the Republican and Democratic presidential nominees. The same questions will be asked both candidates. Their replies will be published in the October *Successful Farming*. Send in today the question you think is most important. Here is how:

1. Write the *one most important question* you'd like to ask. Use 25 words or less.

2. In another 25 words or less, tell *why* this is your most important question.

3. Sign your name and full address, and mail your question to: *Candidates' Questions, The Editors, Successful Farming, Des Moines 3, Iowa.*

4. For the best questions actually used, *Successful Farming* will pay $10 each. For the next 10 best, $5 Honorable Mention awards will be made.

5. Winners will be chosen on the basis of both question and reason. All questions, used or unused, will become the property of *Successful Farming*. The decision of our judges must be final.

6. All questions must be postmarked no later than June 25, 1952. Only one question per person, please. Winners will be announced in the October *Successful Farming*, with their questions and the candidates' answers.

"We're all glad we changed to Dodge *'Job-Rated'* trucks," says Medo Calzavara. "I have owned other trucks in the past, but they didn't give me anywhere near the dependability I get from Dodge."

"Dodge trucks turn a lot sharper than my former trucks. That's important in farm hauling. I own two Dodge stake trucks and a 1-ton Dodge express that I can move in and out of tight quarters in farmyards with no trouble at all. Makes loading and unloading a lot easier."

Farmer tells why he and brothers switched to Dodge

"My Dodge *'Job-Rated'* trucks are tops for all-'round service on farm hauling jobs," says farmer Medo Calzavara of Libertyville, Ill. "And because of *my* experience, my two brothers also switched to Dodge!

"There's plenty of extra power in those big Dodge engines but gas and oil costs stay way down. The Dodge brakes are a lot better, too—and it sure takes good brakes to hold a truckload of livestock, especially when the cattle or horses get to shifting around. Dodge is sure a dependable truck for farmers!"

Ask *any* owner of a Dodge *"Job-Rated"* farm truck, and chances are he'll be just as enthusiastic as Mr. Calzavara. Next time you're in town, visit your Dodge dealer for all the facts about a Dodge truck that's *"Job-Rated"* to fit your farm.

"Long rides are more comfortable because the Dodge cab has all the room you'd ever want, a swell seat, and extra-good visibility. The more I drive my Dodges, the more I appreciate all the comfort. Yes, my brothers and I are sure glad we switched to Dodge *'Job-Rated'* trucks!"

DODGE "Job-Rated" TRUCKS

COMPARE AND YOU'LL GIVE

HAMILTON BEACH!

COMPARE IT FOR EASE OF USE!

EASIEST Portability!

With beater unit that glides off stand for use at table, range, anywhere! No triggers, catches, latches. Compare!

EASIEST Operation!

With exclusive MIXGUIDE that puts 10 tested speeds under her thumb, magnified for flash reading. Hand that holds mixer sets speed. Frees her other hand to hold a pan, add ingredients. Full power at all speeds. Compare!

EASIEST Bowl Control!

Shifts ever-turning bowl while beaters revolve—guarantees thorough mixing. Easiest of all food mixers to use regardless of price. COMPARE and you'll choose Hamilton Beach! *Hamilton Beach Co., Div. of Scovill Mfg. Co., Racine, Wis.*

$37.50

BOTH BOWLS PYREX

JUICE EXTRACTOR sold separately $4.50*

Compare it for VALUE!

Ask any owner of the Hamilton Beach Food Mixer. Forty years of experience and 15 million appliances say Hamilton Beach is *real value*. At $37.50, Hamilton Beach is your best dollars-and-cents buy. Compare! Meat grinder, slicer-shredder, coffee grinder, pea huller and bean slicer attachments available.

**Prices subject to change without notice.*

NEW HAMILTON BEACH Mixette®

BEAT, MIX, MASH, WHIP in any bowl or pan.

FULL-POWER MOTOR—even mixes heavy molasses-cookie batter.

THUMB ADJUSTS SPEED—other hand holds pan or adds ingredients.

HANGS ON WALL or fits in drawer—bracket furnished.

BEATERS SNAP IN for use—snap out for cleaning.

$18.75* IN GIFT BOX

Includes bracket and screws for wall mounting.

Made by the makers of top-value Hamilton Beach Vacuum Cleaners

All around the house®

Here are tips to help you save some time, space, steps, and work

● **I have more candles than candleholders in my home, but I solved this problem by using old-fashioned, individual salt dishes to hold extra candles. The dishes are low and can be concealed by flowers or other arrangements.—*Mrs. R. R., Nebraska.***

● My latest freezing discovery is that one can cook frozen vegetables in the oven without any water. I bake succotash in a covered dish in a moderate oven until the vegetables are cooked, add butter, and serve. There is no water to drain off and the flavor is delicious. Corn and peas are other vegetables which taste good this way.—*Mrs. P. H., Minnesota.*

● **A set of little girls' toy cooking utensils is a handy kitchen-cupboard item. I use the small egg beater for beating one egg in a small bowl or cup, and the small spatula goes easily into small or delicate places in intricate salad arrangements. Other pieces can be put to various uses, also.—*Mrs. K. S., Java, Indonesia.***

● A long, unsightly lamp cord can be made short and springlike by winding it around a broom handle.—*Mrs. F. M., Iowa.*

● I keep an old nylon stocking in my clothes hamper and place all of my small child's soiled socks in the stocking. When I am ready to launder, I tie a knot in the toe and top of the stocking and place it in the washing machine. No more hunting around in hot water for all of the little socks!—*Mrs. M. L., Ohio.*

● **I made bookmarks from old envelopes by cutting off the corners and slipping one**

over each page to be marked. Envelopes marked for air mail show up best on the pages.—*L. C., Nebraska.*

● To avoid burning or scorching rayon or nylon material while ironing, I pin a scrap of similar material to the end of my

ironing board. I test the heat of the iron on the sample before using it on the article to be ironed.—*L. T., California.*

● **I glue a miniature calendar to the inside cover of my checkbook. This saves time and prevents error when dating checks.—*Mrs. L. F., Iowa.***

● To make a handy holder for my paper bags and dustpan, I used an ordinary metal coat hanger. I bent the hanger to form a square and stapled it to the door of my utility closet with the hook at the

bottom. The top of the square was not stapled so the paper bags could easily be slipped under the wire hanger from the top. The dustpan hangs from the hook.—*H. O., Ohio.*

● **Before I began to paint a doorway in my home recently, I cut a hollow rubber ball in two, made a small slit at the base of one half of the ball, and pushed this onto the**

handle of my paintbrush. The ball formed a cup at the base of the brush and caught the drippings as I painted. Also good for painting a ceiling.—*L. W., Michigan.*

● When I lost the cap to a plastic bottle recently, I made a substitute cap by melting paraffin and shaping it over the top of the bottle while the paraffin was still warm. I first placed a common pin in the small hole in the top of the bottle so the paraffin wouldn't stop up the hole. If the cap cracks, it can easily be remelted and shaped again.—*M. M., Iowa.*

Successful Farming will pay $5 for each helpful suggestion published. We cannot return unused suggestions.—Editors

LINIT Starch...Special Premium Offer

Beautiful *Broadcloth Blouse*

Regular $3 value yours for only $1

And one LINIT endflap

Fifth Avenue Blouse by *Sophisticate*

You'll compliment yourself on this fashion find! Lovely white broadcloth blouse, with white waffle pique collar and trim. The latest Gibson Girl styling...stand-up wing collar with clever button-down black grosgrain criss-cross tie. Launders beautifully ...Sanforized to prevent shrinking. Sparkling round crystal-cut buttons. Sleeveless...for all summer wear. Sizes 30 thru 38.

It's easy to make LINIT...in less than a MINUTE!

Give all your cottons a smooth, "like-new" look ...use LINIT® Starch. No cooking needed. Easy mixing directions on package.

—ORDER BY MAIL...*TODAY!*—

LINIT, Box 422, Trenton, New Jersey

I am enclosing $..... and ..... LINIT endflaps. (Send $1 and 1 LINIT endflap for each blouse.) Please send me the following white blouses:

SIZE 30	SIZE 32	SIZE 34	SIZE 36	SIZE 38

Name.....

Street.....

City..... *Zone*..... *State*.....

ALLOW 3 WEEKS FOR DELIVERY. This offer is subject to withdrawal without notice. Void in any area where prohibited, taxed or otherwise restricted.

Made for Each Other

Modern Engines, Modern Heavy Duty Motor Oil and Modern Wix Oil Filter Cartridges

In modern, high compression farm engines, parts fit closer, lubrication bears a heavier burden and you need exceptional filtration to keep the new, heavy duty, detergent type oils at peak efficiency. Today's WIX Oil Filter Cartridge gives you this superior filtration because it contains the modern, heavy duty filtrant—

WIXITE

HEVI-DUTY WIXITE with its resilient density and electronically controlled construction removes more harmful dirt, grit, dust and sludge. Why? Because this sludge-thirsty filtrant filters through its full depth, *but does not remove* detergent additives from the new oils. For greater protection of your tractor, truck, car and stationary engines, "Clean Up The Oil With Wix." Your Farm Equipment dealer can supply you with WIX Engineered Filtration.

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OIL FILTERS CARTRIDGES

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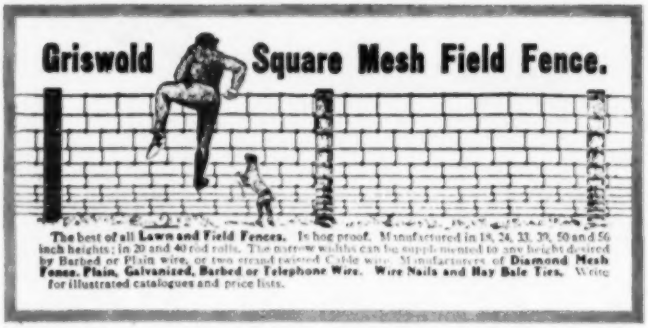
WIX ACCESSORIES CORP., LTD. • TORONTO, ONT.

WHAT WAS NEW IN FARMING

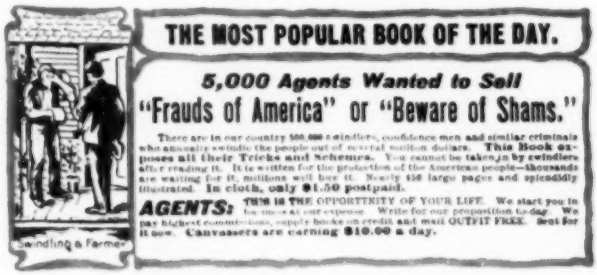
50 Years Ago



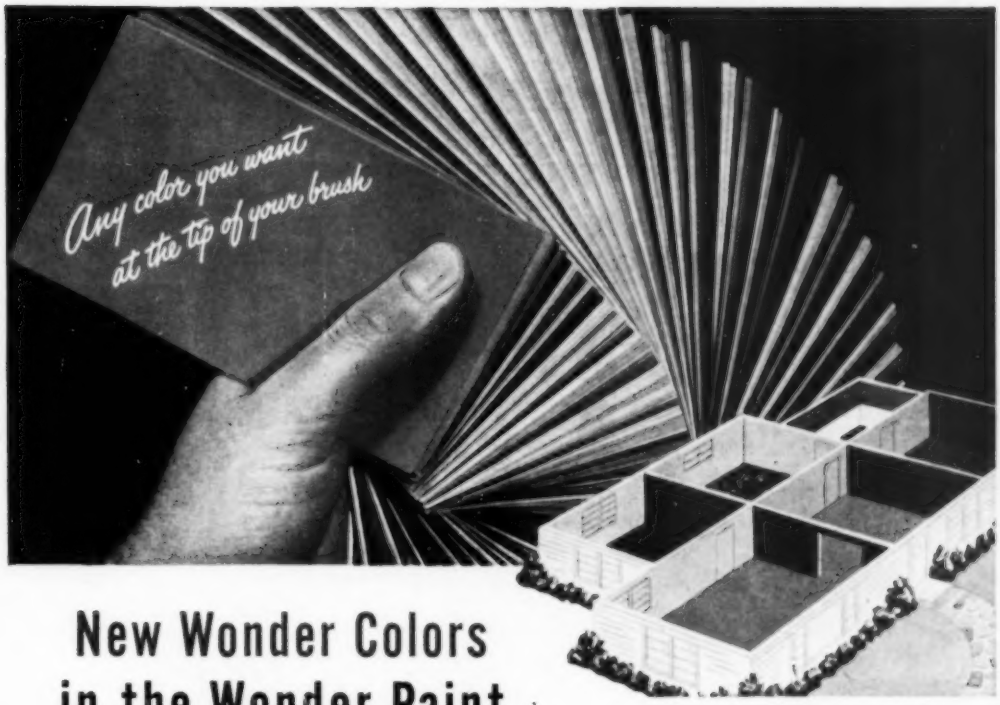
This year is *Successful Farming*'s fiftieth anniversary, so we thought you readers might like to reminisce a little with us. Here are some advertisements that appeared 50 years ago in *Successful Farming*. How many of you can recall the type of fencing shown above?

The advertisement on the right reminds ➔ us of "blue Mondays"—and makes us thankful for the industrial progress which provided our present-day laundry equipment

Back in 1902, veterinarians weren't always available in the "nick of time." Veterinarian correspondence schools, therefore, did a big business with farmers and ranchers



With the booming "blue sky" real-estate transactions of that era, this expose seems to have been a best seller—not to mention the business opportunities involved. Some of this old advice might be worthwhile for us to read today



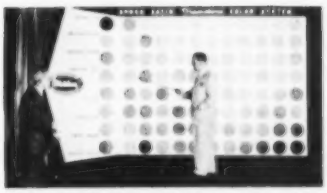
New Wonder Colors in the Wonder Paint

Unmatched washability in a complete new range of colors—from deepest tones to most delicate pastels

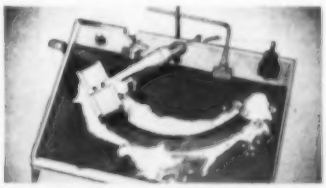
YOU'VE ASKED for more Spred SATIN colors—and they're here! Scores of dramatic new colors that are your answer to every decorating scheme. Gay colors, deep colors, light colors—each with famous Spred SATIN washability and ease of use.

The same research leadership that gave you the 100% latex emulsion paint now brings you this complete new range of livable colors through the Spred SATIN Dramatone Color System. You have your choice of many ready-to-use colors, plus a simple, economical way to get *exactly* the color you want.

Yes, now you can go as far as you like with color on your walls, ceilings and woodwork, with Spred SATIN, the paint that won't let you make a mistake.



It happened at the Waldorf-Astoria. The exciting Spred SATIN Dramatone System was recently unveiled for hundreds of leading decorators, magazine and newspaper editors at the Waldorf-Astoria Hotel, New York City. It won their praise . . . as it will win yours!



Proved Washability! In rigid laboratory tests, Spred SATIN withstood 40,000 scrubbing strokes on this "torture machine." Test panel did not change color or texture. Only Spred SATIN is so washable, scrubbable, durable!

Why Millions Love to Use the Wonder Paint

- **Goes on so quickly you can paint a room in half a day!**
- **Dries in 20 minutes!**
- **No streaks, no laps, no brushmarks!**
- **No painty odor—you can paint with windows closed!**
- **Washes perfectly time and again—without a trace!**

Copyright 1951, The Glidden Company

THE GLIDDEN COMPANY, National Headquarters: Cleveland 2, Ohio • *In Canada:* THE GLIDDEN COMPANY, LIMITED, TORONTO • **SPRED SATIN** is also sold by dealers for the following paints: Heath & Milligan • Climatic • Royal • T. L. Blood

Glidden SPRED SATIN

THE 100% LATEX EMULSION PAINT

LOOK AT THE PRICE...LOOK AT THE BEAUTY...
TRULY "FOR PEOPLE WITH LIMITED BUDGETS
AND UNLIMITED GOOD TASTE"...

Fashion Trend®

BY JOHNSON-CARPER

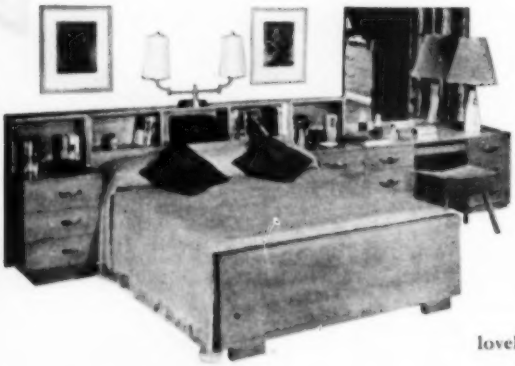
Sculptured Carpet by Morgan-Jones
Photographs by Alderman's of High Point

YES! YOU CAN OWN THIS LOVELY
FASHION TREND SUITE FOR ONLY—

$289

INCLUDES DOUBLE DRESSER WITH MIRROR, CHEST AND BED. THE BEDSIDE CHESTS, AS SHOWN, ARE EXTRA.

Prices May Vary Slightly In Some Sections, Due To Freight Cost Differences Your Dealer Must Pay.



Fashion Trend offers 12 different pieces in "Brown Bisque Maple," including bookcase bed, vanity and deck night table shown above.

Edmond J. Spence, master of modern furniture design, is at his modern best in this beautiful *Fashion Trend* suite . . . and yet the *brown bisque* finish on aristocratic maple captures just a suspicion of yesteryear charm—for a bedroom that's truly different, truly delightful. Ask your dealer to show you *Fashion Trend* "Brown Bisque Maple"—and other lovely *Fashion Trend* designs.

Send 25¢ for the Fashion Trend Plan-Pak, with Room Strategy Plotter and Furniture Cut-Outs to scale. Edited by Jean Watt, noted design and color consultant.

Fashion Trend PLAN-PAK

SOLD BY THOUSANDS OF STORES FROM COAST TO COAST.
IF YOU DON'T KNOW THE NAME OF YOUR NEAREST DEALER,
WRITE US—WE'LL REPLY PROMPTLY!

JOHNSON-CARPER FURNITURE COMPANY, Inc., ROANOKE, VIRGINIA

SOIL CONSERVATION WHAT'S AHEAD?

The new chief of the Soil Conservation Service gives his views on where we go from here on this job of soil-saving

By Robert Salter
Chief, U.S. Soil Conservation Service

As I see it, the job ahead for soil conservation is more than to *preserve* the soil—it is to build the soil to highest levels of fertility. The deterioration of our soils through cropping is at least as serious as losses from erosion.

Let me illustrate: In one year, an acre of fertile soil planted to corn can suffer a productivity loss equal to removal of 20 tons of topsoil by erosion.

This fact has been concealed by recent increased yields per acre. I am convinced that the biggest contributing factors to the recent upward trend in crop production have been mechanization, improved crop varieties, crop pest control, better cultural measures.

To combat this "internal erosion," it helps if we can think of soil conservation in this way: *You can conserve soil without improving it, but you can't improve soil without conserving it.* Soil conservation has come to mean saving the soil, building it up, and increasing yields—all at the same time.

As our part of the job, the Soil Conservation Service is speeding up the help it provides farmers and ranchers with technical soil and water problems. For example, under a new system, a farmer can get *immediate service* by just signing an agreement with his soil conservation district that he will "use his soil according to its capabilities and treat it within its needs" and begin to "develop and carry out a conservation plan for his farm." Formerly, help could not be given until the complete farm plan was developed.

In a democracy we don't force people to conserve soil. We don't use devices that sacrifice individual freedom. Instead, we rely on a system composed of three parts: (1) education, (2) technical assistance, and (3) financial assistance to help with the job.

As I see it, these three phases do not duplicate each other. Instead, each supplements the other. Each has a purpose and a reason for being.

The Extension Service is responsible for carrying out the broad, over-all education phase of soil conservation. The Soil Conservation Service is responsible for the on-the-farm technical-assistance phase. The Production and Marketing Administration, through the Agricultural Conservation Program, is responsible for the financial-assistance phase.

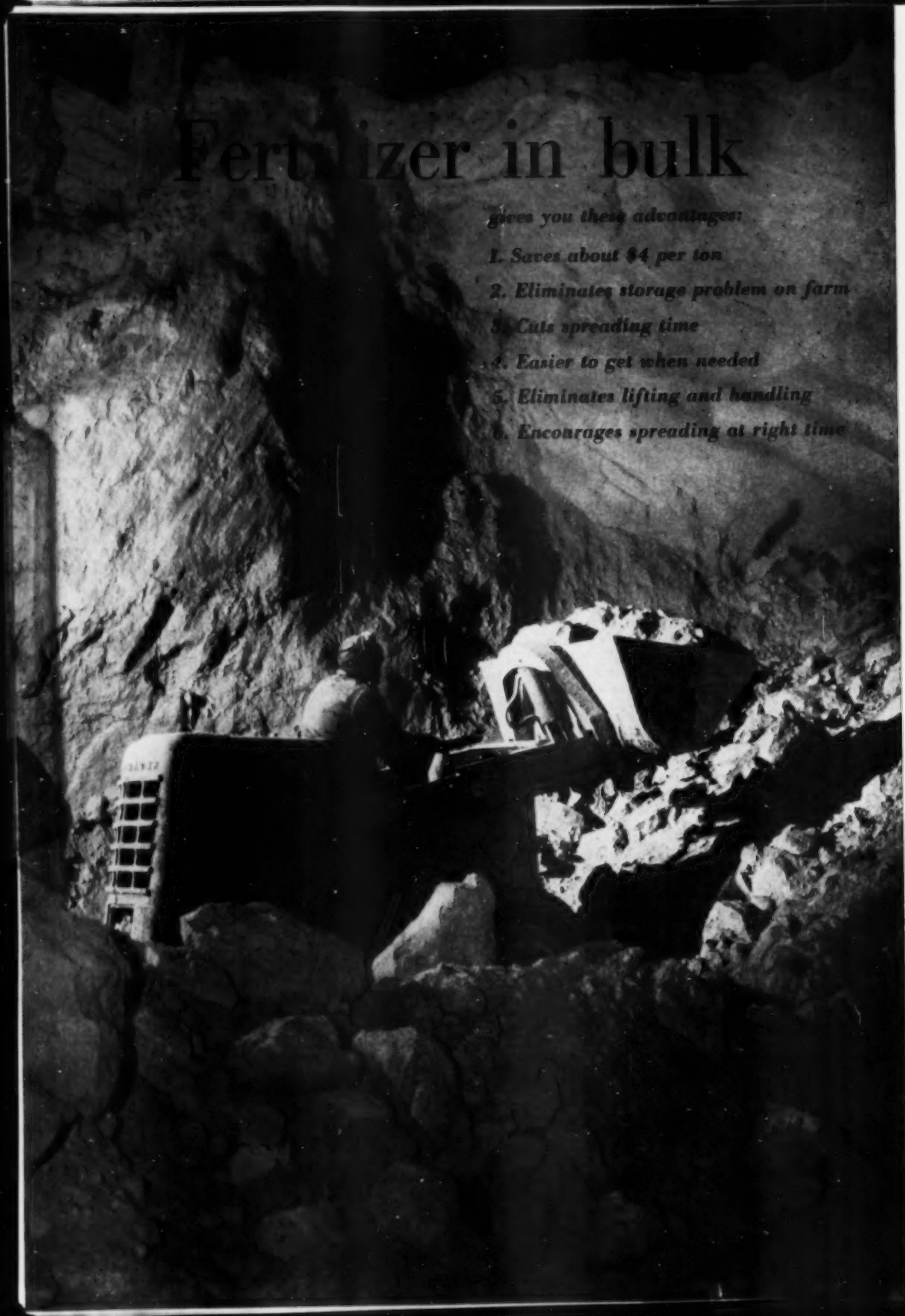
I can best explain my concept of the difference between education and technical assistance by comparing them to human health. Health education may make an individual want to keep himself in good condition—to go to a doctor or a dentist for a checkup—and to follow certain rules of health and nutrition. But, health education does not train him to fill his own teeth, or to diagnose and treat ulcers or pneumonia. For that he goes to a doctor or a dentist, a specialist in what ails him.

The philosophy behind the present Agricultural Conservation Program is that financial assistance in achieving soil conservation is in the public interest—that we cannot afford undue delay in applying conservation measures and permit our soil resources to deteriorate further because of the delay.

In carrying out the technical-assistance phase of the soil conservation program, the S.C.S. works through local soil conservation districts, which are local units of state government organized and controlled by farmers. *I consider the soil conservation district one of the most effective devices through which the government can serve farmers without dominating them.*

Soil conservation districts now blanket about three-fourths of the nation's agricultural land. A job for the future is for farmers to bring *all* agricultural land within soil conservation districts.

It is only reasonable that these [*Turn to page 62*


Fertilizer in bulk
gives you these advantages:
1. Saves about $4 per ton
2. Eliminates storage problem on farm
3. Cuts spreading time
4. Easier to get when needed
5. Eliminates lifting and handling
6. Encourages spreading at right time

← **Tractor scoop moves fertilizer** directly from storage pits to spreading truck, cutting out expensive and time-consuming sacking operation. Same type loader is used for both complete fertilizer and straight goods

Fertilizer is dumped into elevator which carries it to truck on outside. Coarse grate breaks up larger lumps. Hand loading is unnecessary to move fertilizer from plant to truck as is the case with sacked goods

Photographs: Pease

Overhead hammer mill leaves fertilizer in uniform, granular form. Some spreading trucks are divided into three compartments, enabling driver to make three deliveries per trip, cutting down on freight costs

By Vernon Schneider

Once over and your fertilizing job is done—no loading, no unloading, and no bags to fool with. Bulk delivery and spreading of fertilizer takes care of all these in one sweep. Handling fertilizer in the bulk not only is a great time- and laborsaver, but cutting out these operations reduces the cost.

Bulk idea spreading. All phases of getting plant food into the soil are covered by the bulk idea. Raw rock phosphate and lime have always been handled in bulk. It is only in the past few years that complete fertilizer and the straight goods have been handled and spread in bulk.

Two good examples of how bulk fertilizer can successfully furnish our plant-food needs are the Plant Foods Division of the Missouri Farmers Association and the Whiteside Service Company in Whiteside County, Illinois. Around 10 percent of the complete fertilizer sold by the M.F.A. company is handled and spread in bulk. Last year, nine trucks operated out of the Springfield, Missouri, plant, and four out of the Maryland Heights plant near St. Louis.

Ninety percent handled in bulk. In Whiteside County, Illinois, 90 percent of the $225,000 worth of fertilizer spread by the Whiteside Service Company in 1951 was in bulk form. Of this amount, about 50 percent was spread by farmers, the rest by custom spreader companies. The Whiteside spreading operation is unique in that most of this fertilizer is delivered and spread as straight goods.

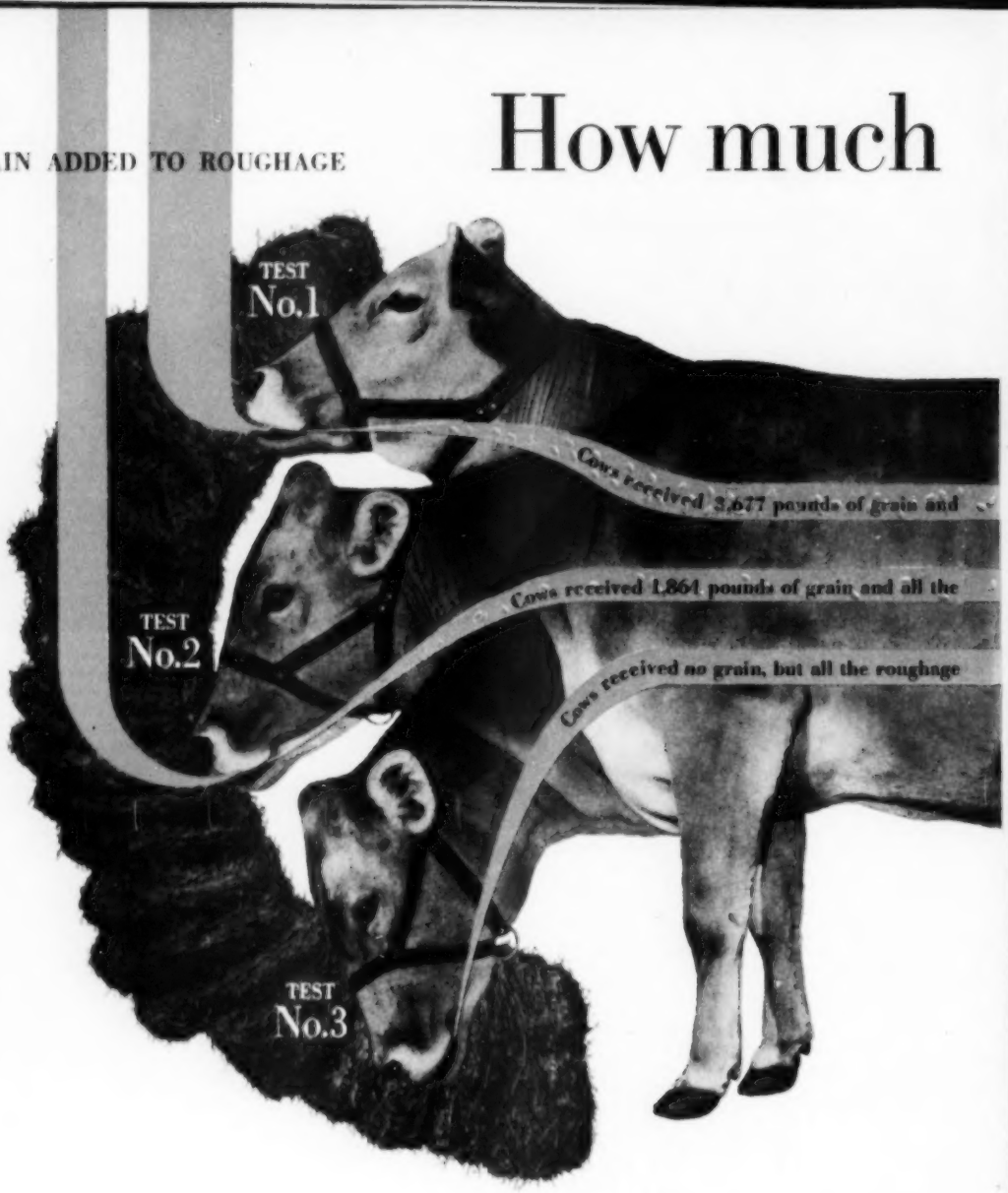
However, custom-mixed fertilizer also is available at the Whiteside plant. Here is how it works. A soil test is first made of the entire farm. Then, a formula is worked out to fit the soil needs of each field. The necessary ingredients, in the right proportions, are weighed [*Turn to page 94*

Truck is weighed before and after loading on authorized scales. If more than one delivery is made per trip, truck is weighed after each compartment is filled. Duplicate weight ticket goes to the farmer

Fertilizer is spread directly onto field, eliminating backbreaking job of emptying sacks. Booms out each side give wide, even, and accurate coverage. Canvas around boom prevents blowing on windy day

GRAIN ADDED TO ROUGHAGE

How much



Here's how the Rutgers experiment feeding tests were conducted

Cows in the Rutgers experiment were divided into three groups. In each group, cows were fed all the high-quality roughage they would eat. During the barn-feeding periods, the cows were fed U. S. No. 1 extra-green, leafy, second-cutting or third-cutting alfalfa hay. They were pastured on a good grass-legume pasture during the summer months.

Group III received no grain; Group II was fed 1 pound of grain for each 6 pounds of 4-percent milk produced; and Group I received 1 pound of grain for each 3 pounds of milk produced. All the cows were fed hay while on pasture.

Group III produced an average of 8,410 pounds of 4-percent milk; Group II jumped to 9,741 pounds of 4-percent milk; and Group I averaged 10,313 pounds of 4-percent milk. Grain feeding produced the most milk.

The increase in milk production due to grain feeding is an important result of this study. The Group II cows (ones on the light grain ration) consumed an average of 1,864 pounds of grain. This grain stimulated 1,331 extra pounds of milk (compared with the cows that received no grain). *The extra milk produced per pound of grain fed was .71 pound.*

The Group I cows on the heavy grain ration consumed 3,677 pounds of grain and produced an additional 1,903 pounds of milk. *The extra milk produced per pound of grain fed was only .51 pound.*

The experiment also showed that low-producing cows gave a better response to both a high-quality ration and to light grain feeding than did high-producing cows.

roughage can a cow eat?

By Samuel H. Reck, Jr.
Rutgers University

Milk increase per pound of grain:

TEST No. 3	TEST No. 2	TEST No. 1
	.71 lb.	.51 lb.

Dairymen everywhere are faced with a squeeze that hurts. They're fenced in on one side by rising feed costs, a short labor supply, and high-priced replacement stock. On the other side, the pressure of public opinion and controls holds down the price the dairyman gets for his milk. Farmers in some states are faced with still another problem—the cost of shipping their grain from grain-producing areas.

There isn't much the dairyman can do about the price of milk. Therefore, his only hope of staying in the dairy business is to find some way to shave the cost of production. Part of this cost can be met by producing more milk per hour of labor. However, his best bet is to *cut feed costs by replacing as much grain as possible with high-quality hay and pasture.*

Dairymen, as well as feeding experts, are all searching to find out how far we can go in replacing grain with roughage and still keep milk production at a high level. The Grange League Federation, a strong Eastern cooperative, financed a 5-year study by the New Jersey Experiment Station to explore ways of cutting down, or even eliminating, the feeding of grain to milk animals.

"It seemed like the most foolish thing an organization like ours could do," says E. A. Gauntt, a New Jersey official, "and yet I'm convinced it was the smartest. We derive a big share of our income from the sale of concentrate feeds to dairy farmers. It looked like we were paying for the privilege of cutting our own throat."

However, the Grange League Federation, knowing that its prosperity is tied up with the prosperity of its farmer members, was willing to support any study that would help the farmers produce milk more efficiently.

The mechanics of the Rutgers experiment are explained on the opposite page.

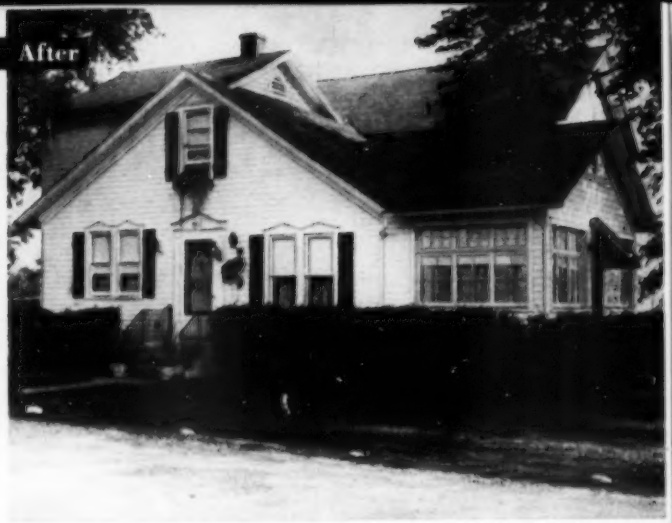
Now, let's put this experiment on the farmers' level. If all the dairy farmers in New Jersey grew and fed the kind of roughage used in this study, they could maintain their present milk production without feeding a pound of grain. Or, they could cut into half their present rate of about 1 pound of feed for each 3 pounds of milk produced. *This would mean a feed saving in the state of New Jersey alone of around 79,000 tons of grain concentrate per year.*

Even more convincing is a study by the Agricultural Economics Department at Rutgers to determine the value of roughage in reducing milk production costs.

On 10 farms, the dairy herds received 72 percent of their feed requirements from roughage. These herds were compared with 10 other herds getting only 53 percent of their feed requirements from roughage. The milk production per cow for each group was about the same.

Look at the results! [*Turn to page 72*

Before



After

This is the house, pictured above, as it looked when the Prices moved on the farm. The picture at the right shows what a great deal of planning and work went into the remodeling. Mrs. Price, in addition to directing the carpenters, managed to do all interior painting. One of the remodeling requirements Mrs. Price insisted upon was the entrance on the driveway, thus preventing guests from coming in the back door. A porch and a kitchen were added

After

The service buildings were just as bad, if not worse, than the house when the Prices bought the farm. The buildings needed repairs and additions to make them usable for the dairy program Mr. Price had in mind. Over the years, the needed repair work has been completed. Today, the service buildings are as modern as can be. Paint, and more paint, has made the entire farmstead look far different—and better—than it did when the Prices first took over 13 years ago

Before

Photographs: Gorski, Bradshaw

A new kitchen was added to the old house during remodeling. Mrs. Price makes all her own bedspreads and draperies for the 7-room home. The kitchen is fully equipped with laborsaving appliances. Cooking is now a pleasure

Children's playhouse was built like the big dairy-cattle barn. The boys, Jean (in playhouse door) and Gary, spend a great deal of time here. Daughter, Helen, was too young to pose for us

The Prices found a lot of life in a tired farm

By Henry and Vera Bradshaw

Driving south of Hebron, Illinois, on Highway 47, you're bound to see the farm of Mr. and Mrs. Donald Price. And you'll like what you see. A spick-and-span lawn, landscaped to the highway—the farm home and barns painted white with green trim. Flower boxes are placed not only at the house windows, but at those of the barn, too. White wooden fences hide the barnlots from the house and driveway.

Neighbors can remember when this farm looked entirely different. So can Mr. and Mrs. Price. When they moved to it 13 years ago, the house was window-deep in weeds and trash, infested with rats, and without paint. The barns were in the same condition. The land was just plain tired. Optimistically and hopefully, they named the farm, "Happy Acres."

Donald didn't realize how farfetched the name was, until he heard from neighbors that the land was so poor in areas that it hadn't produced its own seed. Most of the acreage had been cropped and cropped until it was gasping for relief.

Donald hauled trash, fixed fences, cleaned barns, and managed to lime 40 of the 130 acres the first year. Soybeans were planted in order to produce a quick crop of hay to feed the beginning of the dairy herd—32 Holsteins the Prices bought with borrowed capital.

After the first year, soybeans were not planted again. Donald felt that corn and small grain were better cash crops. A 4-year rotation plan has proved satisfactory. Every 2 years hayfields are plowed under. The land was sadly in need of good management, and Donald realized it.

The farm program was a good one, and fortunately, the land was quick to respond. Eventually, all the land was limed and commercial fertilizer is now used.

Here's Donald's theory on revitalizing his land: "You just can't take everything out of the land and not give anything back. It won't work. Each year we attempt to give back as much as we can."

The Prices now own 320 acres of good, productive land. With the help of one full-time hired man, and a little part-time help, the farm is now operated in full swing with a herd of 70 cattle. About 45 of this number are milk cows.

Once a year, the Price family take a vacation. But they never stay away long. They say, "The farm has spoiled us; we wouldn't live anywhere but Happy Acres—we just wouldn't be satisfied any place else."

More on page 70

A land-rejuvenation program was necessary before Mr. Price could expect much in the way of crop yields. Good alfalfa is important part of dairy-cow feeding program on this farm

Laborsaving feed handling takes much of the work out of caring for the dairy cattle. Twice a day, cows are fed ground feed containing 3 parts oats to 1 part corn. At times, they also get silage, hay, oil meal, and minerals

Make PIES *light and delicious for spring*

By Elizabeth Page

Favorite dessert? Why pie, of course! Here are some to add to your list of all-time dessert favorites for spring. So light and fluffy they seem to be as much a part of the season as baby chicks and new spring bonnets.

We heartily recommend these delicately sweet pies for a refreshing finish to spring dinners. The delectable fillings in melt-in-your-mouth pastry or crumb crusts appeal to the eye and the appetite.

As for the cook, you'll be time ahead if you prepare the pies and tuck them in the refrigerator early in the morning. They'll be ready to eat at suppertime with no last-minute fuss or bother when you are busiest.

Make the family's favor favorite from the wonderful recipes below. Then top your masterpiece with whipped cream, coconut, fruit, grated chocolate, or nuts.

Nesselrode Chiffon Pie

Makes a 10-inch pie

Soften **1 tablespoon unflavored gelatine** in
1/4 cup cold water
Scald in top of double boiler
1 cup milk
1 cup light cream
Combine **3 slightly beaten egg yolks**
1/4 cup sugar
1/2 teaspoon salt
Stir hot milk mixture into egg mixture.
Cook over hot water, stirring constantly, until mixture coats spoon.
Remove from heat; stir in gelatine until dissolved. Cool.
Add **1 1/2 teaspoons rum flavoring**
Chill until slightly thick; beat smooth.
Beat **1/3 cup sugar** into
3 stiffly beaten egg whites
Stir 1/4 of egg whites into cooked mixture until smooth.
Fold in remaining egg whites and
1/4 cup chopped maraschino cherries (rinsed and drained)
Pour into cooled, **baked 10-inch pastry shell**
Top with **whipped cream, shaved sweet chocolate**

Lime Chiffon Pie

Makes a 9-inch pie

Soften **1 tablespoon unflavored gelatine** in
1/4 cup cold water
Combine **4 beaten egg yolks**
1/2 cup lime juice
1/2 cup sugar
1/2 teaspoon salt
1 teaspoon grated lime rind
4 drops green food coloring
Cook in top of double boiler until thick.
Remove from heat.
Stir in gelatine until dissolved.
Cool until slightly thickened.
Beat **6 tablespoons sugar** into
4 stiffly beaten egg whites
Beat cooked mixture until smooth.
Stir 1/4 of egg whites into cooked mixture until smooth.
Fold in remaining egg whites.
Pour into **9-inch graham-cracker crust.**
Chill for several hours.

Chocolate Mocha Pie

Makes a 9-inch pie

Soften **1 tablespoon unflavored gelatine** in
1/4 cup cold water
Combine in saucepan
2 tablespoons cocoa
3/4 cup sugar
1/8 teaspoon salt
1 teaspoon instant coffee
1 1/4 cups milk
Bring to boil, stirring constantly.
Remove from heat.
Add softened gelatine.
Cool till slightly thickened.
Beat cooked mixture until smooth.
Whip **1 cup heavy cream**
Add **1 teaspoon vanilla**
Fold whipped cream into cooked mixture.
Pour into **baked 9-inch pastry shell**
Top with **2 tablespoons coarsely chopped nuts**
Chill until firm.

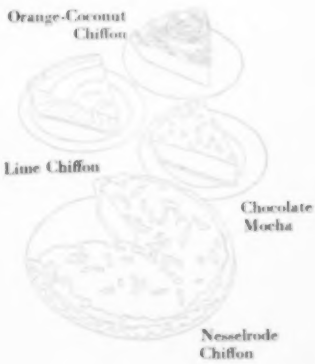
—Dorothea Martin, Wisconsin

Orange-Coconut Chiffon Pie

Makes a 9-inch pie

Soften **1 tablespoon unflavored gelatine** in
1/4 cup cold water
Combine **1/3 cup sugar**
1/4 teaspoon salt
1 cup milk
Heat in top of double boiler.
Add gelatine to hot milk mixture, stirring until dissolved.
Add a little of cooked mixture to
2 slightly beaten egg yolks, stirring constantly. Then pour egg yolks into cooked mixture in double boiler.
Cook until mixture thickens slightly. Cool.
Add **1/2 cup orange juice**
2 tablespoons lemon juice
1/2 teaspoon grated lemon rind
1 teaspoon grated orange rind
Chill until slightly thickened.
Add **1/4 cup sugar** gradually to
2 egg whites, beaten until foamy
Beat whites until stiff.
Beat cooked mixture until smooth.
Stir in 1/4 of egg whites until smooth.
Fold in remaining egg whites.
Pour into chilled, **baked 9-inch pastry shell**
Top with **1/3 cup shredded coconut orange segments**
Chill until firm.

More recipes on page 98



HOUSE-DRESS NEWS

By Carol Towers

There's big news in styles and fabrics for house dresses this season. The 23 attractive materials shown here are but samples of what is available to you this spring. The clever coverall apron and wrap-around dress are designed for the handsome new denims. The other fabrics are suitable for any of these five outstanding dress patterns which *Successful Farming* has selected for you. There's an exciting story here in improved materials and practical designs. [*Turn to page 86*

Wrap-around—5441. Very smart in a wrinkle-resistant cotton splash print with white pique trim. The small print suggested in the swatch is also wrinkle-treated cotton. The gray-and-green pattern and the colorful Paisley are "iron-free" plisse

Coverall apron—5537. You will like it for the easier reaching-lifting-kneeling movement it offers. In any of the sturdy denims shown here, it's practical for hard work in or out of doors. Denim plaids, stripes, and checks are plentiful this year

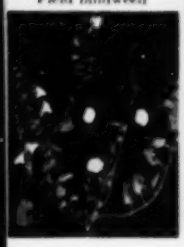
Full figure—5556. Shown in new wrinkle-resistant chambray, button-front style offers iron ease. Pretty, too, in cotton plaid (wrinkle-treated) at left, broadcloth print, right

Dress-up—5832. Styled in a smart broadcloth for shopping, clubs, or meetings. Striped and print broadcloths, wrinkle-treated tissue plaid, and chambray also suggested

A basic washable—5019. Pretty print shown on the model is a broadcloth. The samples in the right hand are cotton plaid, wrinkle-treated cotton print, and a chambray. The left hand holds a treated cotton and print broadcloth

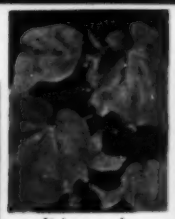
Back views on page 87

Field bindweed



◆ Morning-glory

Flower-of-an-hour



Velvetweed

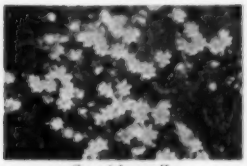
Winter cress

Pasture thistle

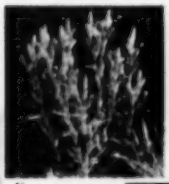
EASILY KILLED. One-fourth pound of actual 2,4-D in ester form or ½ pound of amine kills these weeds in corn, sorghums, or small grains not seeded to legumes

Giant ragweed

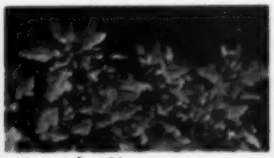
Buckhorn



Spanish needle



Peppergrass



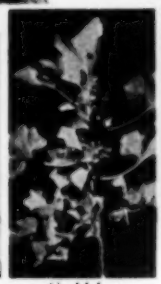
Lamb's-quarters

Wild mustard

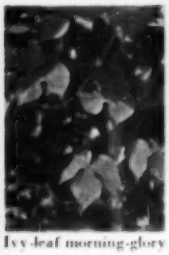
Common ragweed

Chicory

Rough pigweed



Cocklebur

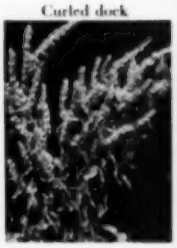


Ivy-leaf morning-glory

To get the most from 2,4-D, study your weeds

Ironweed

Curled dock



Canada thistle

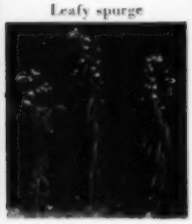
SEMIRESISTANT. From one to five applications of 2,4-D at moderate to heavy rates usually are needed to kill these. Ask someone who's sprayed them

Horsetail

Ox-eye daisy

Common milkweed

Leafy spurge



Wild parsnip

Sow thistle

Wild onion

Blue vervain

RESISTANT. Even the heaviest sprayings with 2,4-D have little effect on those of this group. Other chemicals such as TCA can be used under certain conditions

Ground cherry

Annual smartweed

Jimson weed

Goatsbeard

LESS SUSCEPTIBLE. One-half to 1 pound of 2,4-D is usually needed to stop the weeds in this group. However, the ¼- to ½-pound rate (left) will kill many when small

Wild carrot

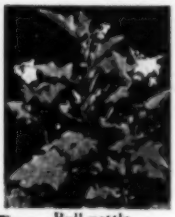
Mayweed

Swamp smartweed

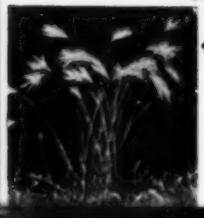
Whorled milkweed

Johnson grass

Yarrow



Bull nettle



◆ Wild barley

Weed killers

2,4-D is still your best bet on most broad-leaved weeds. But a flock of new chemicals—with special uses—are coming along fast. You'll want to keep close watch on them

By C. J. Willard
Ohio State University

Since 2,4-D first appeared, we have come to expect each year to yield some *new* sensation in the field of chemical weed control. And dozens of useful chemicals have followed the 2,4-D revolution. But they can't have the sudden impact on farm practices the first comer did. It was 2,4-D which made the low-pressure, low-volume weed sprayer a familiar tool on thousands of American farms. And it proved we could turn over many of our weed-killing chores to chemicals.

Because of our haste and its sensational newness, we made many mistakes with 2,4-D. We still have much to learn about it. As other new herbicides come along, we are profiting by our 2,4-D experience, and moving more slowly.

Each year, we are more definite and more careful in our recommendations for the use of 2,4-D.

Each individual plant has critical stages which last for just a day or two. Experimental applications even as often as once a week might not pick up these critical stages at all—or they might. This leads to many of the conflicting results that have troubled us.

Dr. P. J. Olson, of Manitoba, has applied 2,4-D to wheat and barley every day, or every two days, in order to study the relation between the plant's development and 2,4-D injury. He found these three short danger periods:

(1) When wheat is treated as the earliest cells of certain leaves are formed at the growing point below the soil surface, these leaves form tubular, or "onion" leaves. (2) When treated as the earliest cells of the *heads* are laid down, abnormal heads of various kinds are produced. (3) If treated as the first cells of the *flowers* are laid down, sterility of the heads and failure to produce seed results.

Similar critical periods exist with corn, but are not so well mapped. One of them, as with wheat and barley, seems to be at germination. Then there seems to be a short safe period—in a test, corn was treated with 4 pounds of 2,4-D per acre, just as the sprouts came through the ground, before the leaves had expanded. Very little injury resulted. Just [*Turn to page 106*

6:00-6:05 Turn on oven; set at 400°.
Prepare Quick Baked Fish for the broiler.

6:05-6:10 Heat water for frozen spinach.
Prepare Head-lettuce Salads.
Sliver almonds for Almond Rice.

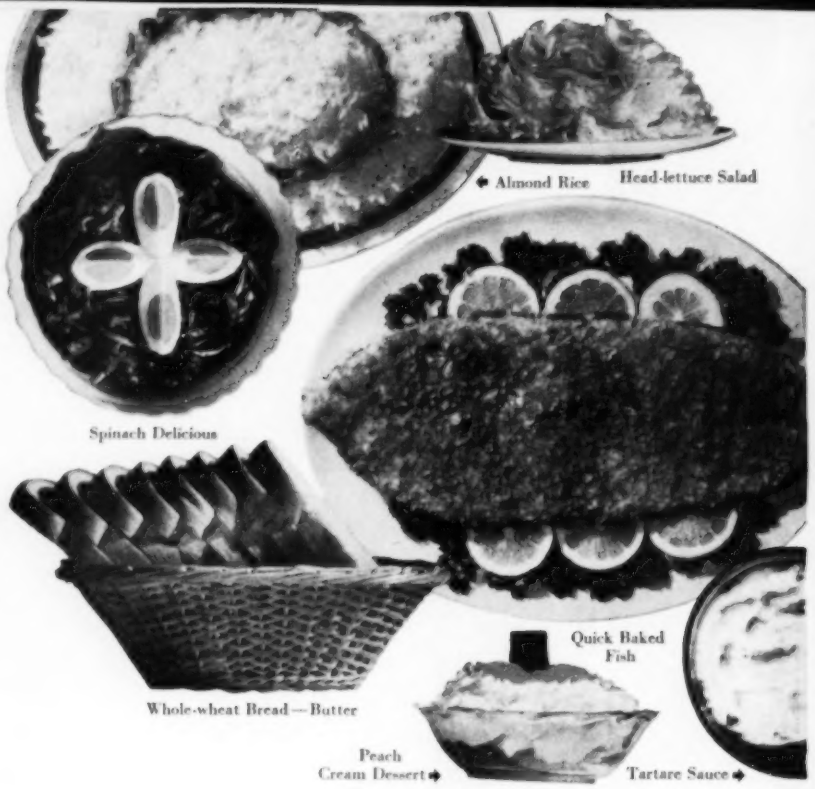
6:10-6:15 Put fish in oven.
Bring rice to boiling point.
Drain peach halves for Peach Cream Dessert.
Toast almonds.

6:15-6:20 Put spinach in boiling water.
Prepare sauce for Spinach Delicious.
Fix Tartare Sauce for Quick Baked Fish.

6:20-6:25 Set rice aside for 10 minutes.
Prepare Peach Cream Dessert.
Drain spinach; add sauce and heat.

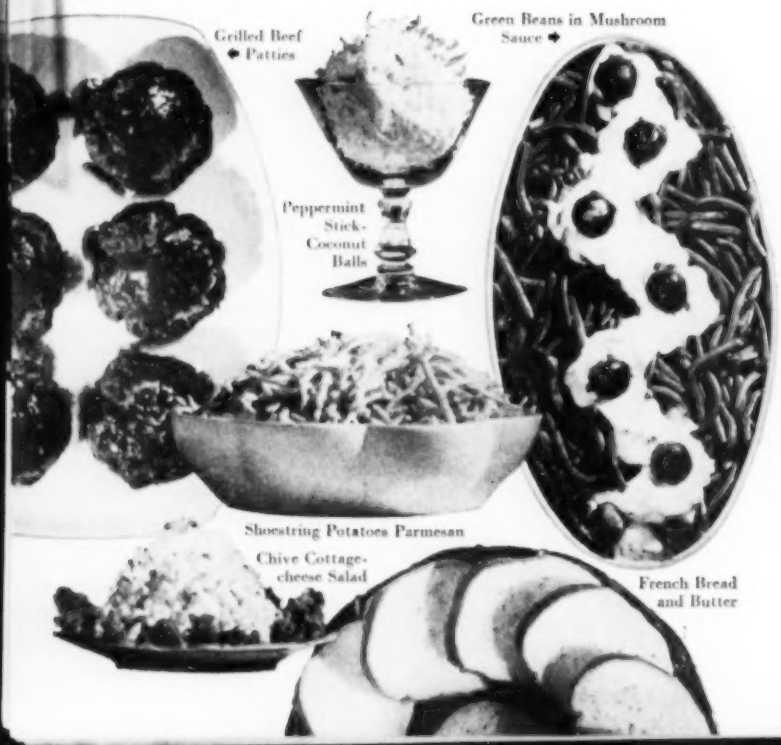
6:25-6:30 Set table; clean up cooking dishes.
Add almonds to rice.
Pour Tartare Sauce over Quick Baked Fish.

Recipes on pages 128-129



30-minute meals

For hurry-up days when a meal is a matter of minutes, here are two half-hour suppers to fill the bill—timed to the minute in our Tasting-Test Kitchens



6:00-6:05 Make Savory Sauce for beef patties; start simmering.
Mix Grilled Beef Patties and form into patties on broiler pan.

6:05-6:10 Start meat broiling.
Empty shoestring potatoes into pan; sprinkle with Parmesan cheese; put into oven.

6:10-6:15 Turn meat; baste with Savory Sauce.
Fix Chive Cottage-cheese Salad; refrigerate.

6:15-6:20 Prepare Peppermint Stick-Coconut Balls; refrigerate.

6:20-6:25 Turn meat; baste with sauce.
Combine ingredients for Green Beans in Mushroom Sauce; heat.

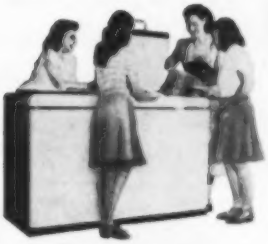
6:25-6:30 Set table.
Clean up cooking dishes.

Recipes on page 128

What you can do about these

3 freezer problems

How much freezer space do we need?



Where is the best place to put our freezer?

How can we organize the foods in our freezer?

By Maurine Harris

Freezing foods is so new to most of us that it fills our minds with questions. Three of the big ones are discussed here. If you want a freezer, or if you're undecided—or even if you already own one—these problems may concern you.

How much freezer space do we need?

"You can't buy one too large" is the advice usually given prospective freezer owners these days. But that statement doesn't give you much to go on in actually deciding how many cubic feet of freezer space you need. You need *practical, specific* suggestions.

Don't jump to the conclusion that because you butcher your own meat, raise a big garden, and have an orchard, you need a mammoth freezer. (On the other hand, it is a mistake to assume you have no use for a freezer just because you *don't* raise most of your own food.)

The size of freezer you buy should be based not on how much you raise, but on how much your family eats!

Your highest aim in owning a freezer should be to put more healthful, better-tasting food on your table. You want a quick, easy way to "put up" foods for future use. And you want your foods handy for mealtime.

If you have your own meats and produce and the help to process them yourself, you'll gain a big additional dividend—a saving in money.

But economy, as well as the other possible advantages, depends largely on whether your freezer is the right size for your family. If it's too small, you have no room to store quantities of foods available at bargain prices. Too large, either you overstock, pay expensive storage costs on food you can't use up before the next season, *or* you have costly storage space going to waste.

To give greatest satisfaction, a freezer should be large enough to handle a large proportion of the staple foods your family uses all year round.

This does not mean the whole year's supply must be on hand at any one time. Economy is in constant turnover; hoarding is a luxury!

Butchering twice a year or more—and at intervals alternate to those when peak loads of vegetables and fruits are building up—is the best way to cut down on total freezer space needed. The chart on page 77 shows how this works.

To get an idea of how much space you'll need, estimate in pounds the amounts of *all* meats, fruits, and vegetables your family will eat in a year. (Base your estimate on a year when you will have the most adult or near-adult members living at home.) One quart of frozen vegetables weighs 16-24 ounces; 1 pint of fruit, with syrup, about 1 pound. Include poultry, wild game, and fish in your meat estimate.

As you probably will have vegetables and fruits in season for about one-fourth of the year, just take three-fourths of your estimated figure for those foods. And, assuming you'll butcher twice a year, divide in half your figure for the year's supply of meat. Add up these numbers. Then divide your total by 35, because that's the approximate number of pounds of assorted foods you may expect to get in a cubic foot of space.

You'll probably come out with something like 10 cubic feet per person!

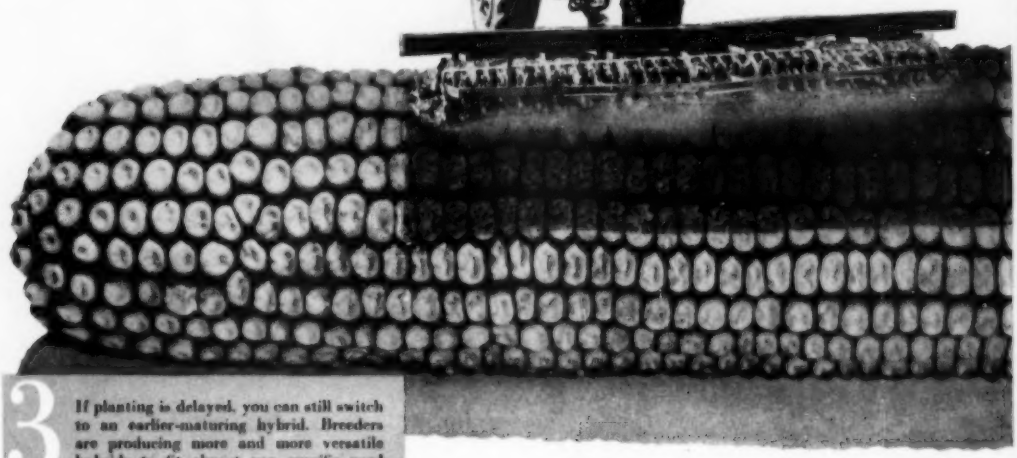
This may look astonishing at first glance. But, based on the experience of other farm families, this is not too high as a *maximum* estimate of needed freezer space.

Actually, your *whole* supply of vegetables and fruits [*Turn to page 76*

5-point planting plan

Change varieties? How thick, how deep, when to plant? Good enough seedbed? A lot of tough decisions —here is help in making them

1 New mulch-planting ideas may be on the way, but until they arrive, the seedbed can make or break your corn crop



3 If planting is delayed, you can still switch to an earlier-maturing hybrid. Breeders are producing more and more versatile hybrids to fit almost any specific need

5 How thick to plant? —About 4,000 stalks per acre for each 25 bushels you think the soil will produce. One kernel each 40"x40" gives you 4,000 stalks per acre

4 Where wireworms and seed-corn beetles have made trouble, you may want to try new lindane or BHC seed treatment. These sprayed on soil also stop cutworms

By Richard Crabb

As May goes, so goes your corn crop. The field of young corn that's ahead going into June usually will come out all right, but the field that's behind seldom catches up.

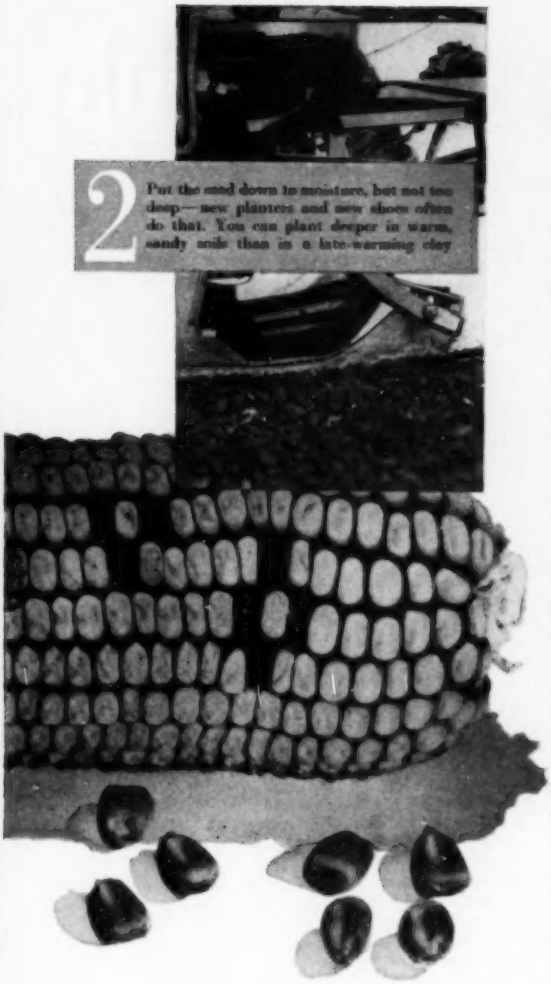
While the weather is important and gets 99 percent of the blame, have you ever noticed how a few farmers usually come through with a relatively good crop no matter what the weather?

In May, you have an opportunity to use more of the "keys to more corn" than in any other month. Just look over this list.

You can plow down a green-manure crop or take other steps to make full use of your permanent soil-fertility program. Also, you can plow down commercial fertilizer. These "keys" were described in detail in previous articles of this series. (See February, 1952, issue for "The Cheapest Corn You Can Grow" and April, 1952, issue for "Fertility.")

You can:

Prepare a good seedbed, often called the most important single step in producing high-profit corn crops.



Review the hybrids you will plant and select other strains which may give you a more desirable maturity or might fit a special need which has arisen.

Select the date and depth of planting for this year, within the limitations of the weather, of course.

Choose a planting rate or row width needed to give you a higher plant population than you used last season.

Control insects, such as cutworms and seed-corn beetles, and prepare for others which come later.

Quite an impressive list, isn't it? And to it could be added that in May you may want to take steps to obtain chemicals that may be promptly applied in June, should insect or weed sprays be needed.

Let's look at these in detail:

Make it a 100-bushels-per-acre seedbed. Although there is considerable experimenting being done on planting corn in fields without disturbing the regular crop and weed residues, as of now, the surest way to get a good corn crop is by preparing a good seedbed. A good seedbed should provide topsoil in good tilth and with weed development carefully controlled.

As cover crops on corn ground become more generally used, corn farmers will find it much less difficult to develop both the good soil tilth and a relatively weed-free condition.

On many farms the line between seedbed preparation and early cultivation is a fine one. If circumstances permit, get the seedbed prepared in time to let the weed seeds sprout. Then, with a spiked harrow or rotary hoe before planting, you can destroy a good percentage of the weeds early. If there's no opportunity to use the harrow or weeder before planting, you can still go over the field once or twice before the corn is big enough to be damaged by these implements.

Pre-emergence spraying with 2,4-D is a possibility. It is more risky than post-emergence spraying, and sometimes results are disappointing if heavy rains follow. (See "Weed killers" on page 44 for recommendations.)

Are you planting best hybrids? Hybrid corn, like the automobile, is constantly being improved by research. Unless you have changed to some newly developed hybrids in the last three years, chances are you should look around. Here are the things to consider:

Choose hybrids to fit your needs—silage, early feed, hogging down corn, corn for livestock, or corn for cash sale. Even the type of livestock makes a difference. Poultry thrives best on corn of highest quality; hence, you would choose hybrids that are early enough to mature for that kind of corn. Hogs and cattle have a greater tolerance, so you can shoot for the higher yields of full-maturity hybrids and take a chance on early cold weather's knocking the quality down a bit.

Select hybrids to fit your maturity requirement. If you decide to use early hybrids, you are likely to get good-quality corn before frost, but you may have to give a little on yield.

Select hybrids to fit your soil fertility. Hybrids vary in their capacity to adapt themselves to varying levels of fertility. Try several hybrids and check yields to be sure you have the best ones for your farm. Check with your neighbors whose soil and corn-growing techniques are similar to yours.

There are a number of fine points involved here. For instance, high-fertility soil usually raises the ear placement on hybrids, and thinner soils lower the ears. As a result, on soils of high fertility you can use hybrids whose natural ear placement is low. On thinner soils, use hybrids that normally carry ears high. The producer can give you the specification of your hybrids, just as your car manufacturer can give you the horsepower rating of your car motor.

Hybrids are bred with varying degrees of resistance to drouth or particular insects and diseases. If you are in an area subject to leaf blight, then try to get hybrids with proved high degrees of blight-resistance. If you are in a chronic corn-borer area, find hybrids with maximum corn-borer resistance. Some hybrids are especially outstanding under drouth conditions.

Some of the most recently developed hybrids are beginning to deliver extra amounts of oil and superior types (not quantity) of protein. If you feed most of your corn, you'll be especially interested in these.

Your hybrid-corn seedsman can give you answers to all the questions raised here. However, unless you inquire, chances are he will follow the line of least resistance and let you buy hybrids you have been using rather than suggest proper ones for you. [*Turn to page 116*

SUCCESSFUL FORMULA FOR A profitable

Automatic waterers keep constant water supply before hens—eliminate carrying. Drinking water is collected off laying-house roof. Drain is below waterer

By E. B. Winner
University of Missouri

Big changes are taking place in the poultry industry. No longer can the old hit-and-miss side-line flock justify its existence in the face of more profitable livestock enterprises. In order for today's farm flock to be a moneymaker, it must take on a new face—one requiring special skill and know-how. And to top it off, today's successful farm flock no longer takes a back seat to hogs, beef, dairy, or sheep—it is one of the major sources of income on many farms.

Let's consider some of the angles which make a successful farm flock tick. You'll need more than one crutch to stand on. A good example is the farm flock found on the Adolph Berendzens' farm in Miller County, Missouri. Their version of a profitable farm flock is built around five points. These points stack up something like this: (1) boosting flock size from 250 to 1,000 hens; (2) using laborsaving devices, enabling them to care for 1,000 hens with the same amount of time and effort required for 250 hens; (3) selling eggs at a broiler-hatchery market. This pays a premium of more than enough to offset extra costs of producing hatching eggs; (4) providing good housing and ventilation—which mean a dry laying house and less disease trouble; (5) practicing good flock management and proper feeding to keep production high the year round.

For many years, the Berendzens had a profitable, side-line laying flock with an annual production of 200 to 250 eggs per hen. A 60-to-70-percent rate of lay—about twice the Midwest average—was generally attained during the high-priced fall months. Selling on a graded market netted an extra 6 or 7 cents per dozen. Carefully kept records told the Berendzens their hens were making money for them—on a per-hen basis.

But with such a small flock, the Berendzens found it impossible to get any sizable [*Turn to page 148*

Community nests make egg gathering easy. Hens enter nests from ends—eggs are removed through side openings. Nests are two-deckers with two rows of nests to each deck

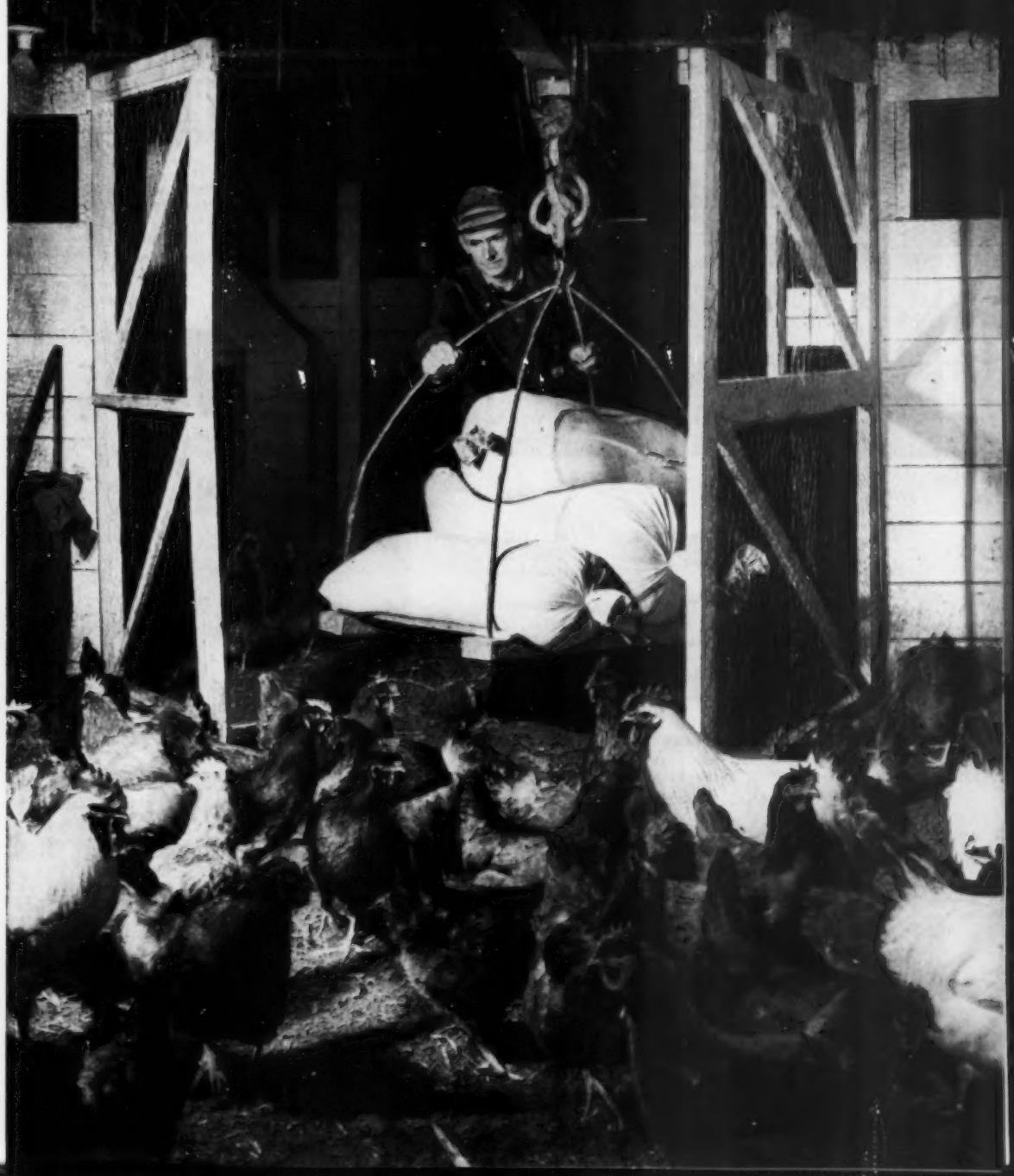
Feed carrier eases chore of moving sacked feed from feed room on one end of 104' laying house to other. House is divided into three pens. Track is built from 2x6s and bolted to cross braces. Hay-track carrier is used for rollers ➔

Photographs: Pease

Drainpipe carries rain water from roof to cistern below laying house. Note open-front windows which allow good ➔ air circulation. Entrance to the egg-holding room is at right

farm flock

1. Increased flock size
2. Use of laborsaving ideas
3. Special egg market
4. Good flock management
5. Proper housing, ventilation

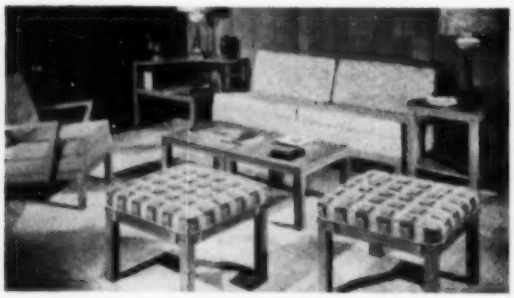


Doubly useful tables

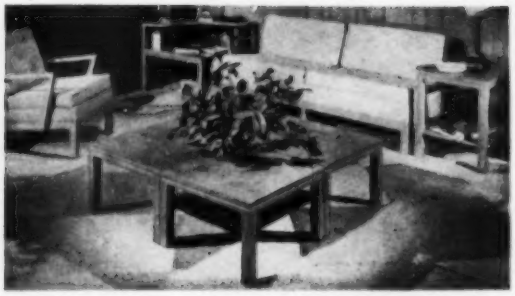
Here's a new twist in the Lazy Susan coffee table, for this one is big enough to use for an informal supper in the living room. Arrange your serving dishes in the center and let everyone serve himself by giving the top ← a twirl to make his choice

Neat-looking end table has a double life hidden in the series of drawers down the front. Simply pull out any of the four drawers, unfold the legs hidden underneath the bottom of each, and you have a small table from which to serve afternoon tea, or to use as an individual table for snacks ↓

Today's tables are designed to serve you in so many ways, they really lead a double life. Their many "extra" features make everyday living much easier, and take the worry out of hostessing by expanding to fit your needs



For a small coffee table, arrange two of these matching square tables side by side, then add cushion tops to other two for extra seating



For an oversized coffee table, all four small tables may be grouped together. Each may also be used for a handy individual snack table

More ideas on page 160

Take the word of the man who knows paint

In house paint it pays to buy THE BEST!

There's a big difference in house paints. It pays to use the best so you won't have to paint so often. That's why it pays to insist on SWP, the house paint that is Weather*ated* for long lasting beauty and protection.

Why gamble with ordinary house paint when the best costs so little? Enough SWP House Paint for the average six-room home costs less than $45.

Ask your Sherwin-Williams dealer to show you how SWP House Paint is Weather*ated* to clean itself and wear longer.

IT'S WEATHERATED

That means SWP is tested rigorously for its ability to resist chalking, checking, cracking, fading, dirt collection.

Go outside and look at your house...

isn't it time for SWP?

For Decorating Ideas, Inside and Out, Borrow the Style Guide . . . FREE. Let your Sherwin-Williams dealer show you or lend you the big Paint and Color Style Guide. Scores of large color photographs of beautiful rooms and homes. Hundreds of authentic color styling suggestions.

If you wish, we will gladly recommend a reliable painting contractor.

IT PAYS TO SEE THE DEALER WHO SELLS **SHERWIN-WILLIAMS PAINTS**

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SHERWIN-WILLIAMS AND ITS ALLIED COMPANIES LEAD THE WORLD IN PAINT RESEARCH

can YOU give the right answers

TO THESE IMPORTANT QUESTIONS?

✓ Check and see if your answers agree with Betty Crocker's

CRISP COOKIES SHOULD BE KEPT AIRTIGHT

☐ wrong ☐ right

Wrong! *Soft* cookies should be kept airtight. *Crisp* cookies stored with a loose cover. Cookies made with Betty Crocker Cake Mixes stay fresh a long time. They have fine shortening, Softasilk Cake Flour and other quality ingredients.

SHOULD PIE PANS BE USED TO BAKE CAKES?

☐ yes ☐ no

No. Pie pans have slanting sides and are too shallow for full-volume layers. Use correct pan sizes! Betty Crocker Party Cake Mix and Devils Food Cake Mix make large layers . . . have a full pound and a quarter of fine ingredients in each package.

YOU CAN'T IMPROVE ON GOOD FRESH EGGS IN CAKES

☐ right ☐ wrong

Right. Fine cakes need good fresh eggs. That's why Betty Crocker Cake Mixes call for fresh eggs, added by you! Fresh egg yolks add flavor and richness; fresh whites froth up to a fluffy lightness. Fresh eggs give better cakes most consistently!

★ You need only two eggs, water, and this 1¼ lb. package of Betty Crocker Devils Food Cake Mix to make this rich, deliciously moist cake.

PARTYCAKE MIX
For beautiful big fine-textured yellow, white, or spice cakes. Use fresh eggs.

GINGERCAKE AND COOKY MIX
Spicy rich. Tender light as cake. Just add water, mix and bake.

try all three wonderful

Betty Crocker Cake Mixes

General Mills

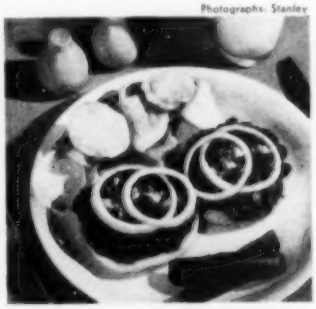
Tips for the cook

Ideas that add sparkle to meals and make cooking easier, quicker

Prepare your own colored sugar for use in cooky toppings, frostings, candied pears and apples, and popcorn balls. Pour a few drops of liquid vegetable food coloring in mixing bowl. Add granulated sugar a little at a time, rubbing with a wooden spoon to blend color thoroughly, until desired shade is reached. Store in covered glass jars.

When time's short and it's too hot to fuss, turn to this quick broiler dish. Split wieners lengthwise and stuff with canned sauerkraut which has been moistened with catsup or barbecue sauce. Wrap a slice of bacon around each, and secure with toothpicks. Two cups sauerkraut will stuff 8 to 10 franks. Broil from 10 to 15 minutes.

Photographs: Stanley



A South-of-the-Border Sandwich is a bell ringer with the high-school crowd. Split, toast, and butter hamburger bun. Spoon ½ cup hot, thick chili con carne over each bun half. Top with onion rings and Parmesan cheese. Pass forks and serve sandwiches open-faced and piping hot. Good with potato chips and dill pickles. Make lots for a hungry crowd.

Keep a jar of garlic oil on your shelf to use in making peppy salad dressings or to brush on meats before broiling. Add about 5 or 6 sliced cloves garlic to 2 cups

salad oil and let flavors blend in covered jar 1 to 2 weeks. Strain out garlic. This keeps indefinitely without refrigerating.

This tidbit idea with bacon was a new one for us, and one we think you will enjoy making and serving, too. Next time you prepare bread stuffing to serve with chicken, save out some to use for Stuffed Bacon Rolls. Roll about 1 tablespoon well-seasoned stuffing in each slice of bacon and fasten with toothpicks. Broil until bacon is crisp, turning once. (This will take about 5 minutes on each side.) Excellent with scrambled eggs.

Steak almost always makes a hit whenever it is served, but here is a chef's trick that will make your next steak taste sensational. Combine ½ cup salad oil, ½ cup lemon juice, 1 tablespoon Worcestershire sauce, and 2 teaspoons onion juice. Let steak stand in this mixture overnight in the refrigerator. To serve, pan-fry or broil as usual and you'll enjoy a tasty, tender steak.

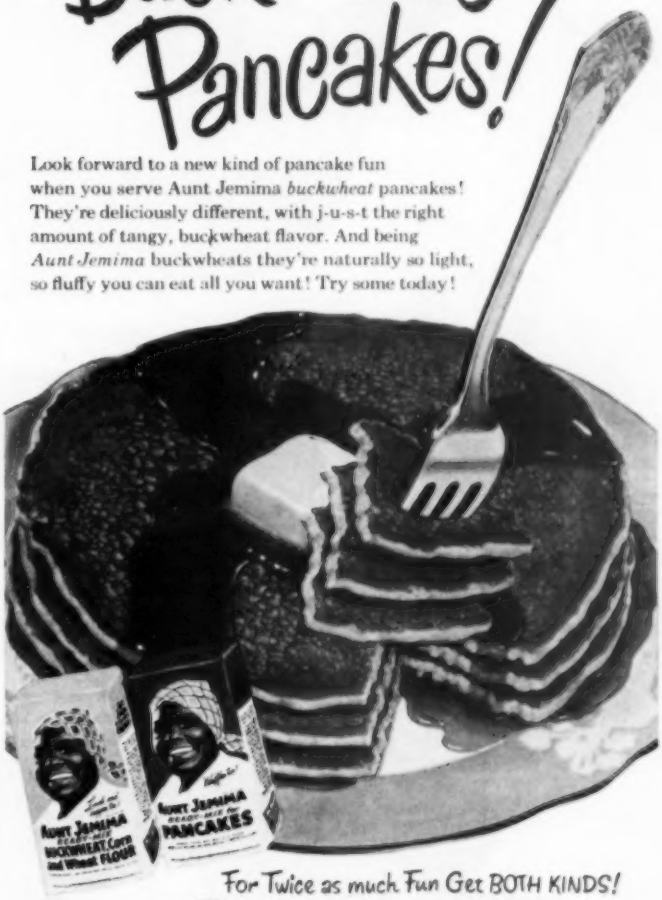
This Cranberry Applesauce is just the thing to serve with meat on your menu. Here's how it's made: Combine equal portions of strained sweetened applesauce and strained sweetened cranberries. Chill. To convert this into a colorful dessert after a heavy meal, spoon the sauce into dessert dishes and top with a fluff of whipped cream. Then sprinkle lightly with cinnamon. This is the perfect dessert to serve after an extra-hearty meal.

Here's a bread-into-cake idea that's a sweet accompaniment to coffee or

tea. Slice day-old bread ¾ inch thick. Remove crusts and cut each slice into 3 strips. Dip in condensed milk; drain on waxed paper. Roll strips in shredded coconut or chopped nuts. Toast at 350° on greased baking sheets until lightly browned, about 12 minutes. Serve hot from the oven or after they have cooled. Something a bit different and easy to make. **END**

Tangy, Aunt Jemima
Buckwheat Pancakes!

Look forward to a new kind of pancake fun when you serve Aunt Jemima *buckwheat* pancakes! They're deliciously different, with j-u-s-t the right amount of tangy, buckwheat flavor. And being *Aunt Jemima* buckwheats they're naturally so light, so fluffy you can eat all you want! Try some today!



For Twice as much Fun Get BOTH KINDS!

Aunt Jemima
Buckwheat Pancakes

○ The yellow sack for buckwheat
● The red sack for pancakes

BUY THE BEST

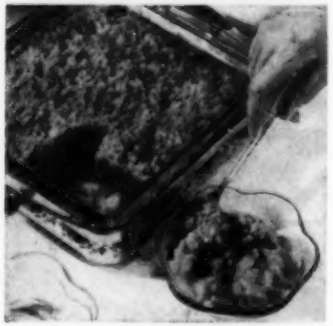
...for the best in cooking

THE SECRET IS IN THE LOW HEAT AND THE REVERE COPPER BOTTOM

Experience shows that the best proves to be the most economical in the long run. This is particularly true in preparing your food, which represents so large a part of the household budget. And that is why buyers of Revere Ware, often attracted first by the beauty of these "Kitchen Jewels," marvel at their economy once they start using them. The copper bottom of Revere Ware spreads the heat more evenly, helps prevent hot spots. The Revere "waterless cooking way," is simple, saves time and fuel, reduces kitchen odors, preserves precious vitamins and minerals, improves flavors.

Revere Copper-Clad Stainless Steel Ware is easy to use, quick to clean, and practically indestructible—you can't burn a hole through it. Revere Ware will prove a lasting tribute to your good taste and far-sighted economy. But make sure you get the *original*. Look for the Revere trade mark in the bottom. Sold by all leading retailers in the United States and Canada. Revere Copper and Brass Incorporated, Rome Manufacturing Company Division, Rome, N. Y.

SEE REVERE'S "MEET THE PRESS" ON NBC TELEVISION EVERY SUNDAY



Rhubarb Conserve

Makes 3 glasses

Combine **3 cups diced rhubarb**
1/4 cup orange peel, put through food chopper
2 cups diced orange pulp
3 cups sugar
Let stand a few minutes to draw juices.
Boil and stir to prevent sticking.
Cook to jelly stage until mixture "sheets" off spoon.
Pour into sterile glasses.
Seal with **paraffin.**

—*Sam Van Pool, Missouri*

Rhubarb Revel

Serves 6

Combine **3 cups diced rhubarb**
1 cup water
Cook until tender.
Stir in . . . . **1 cup sugar**
Run through a sieve.
Add . . . . . **1/2 cup crushed strawberries,** sweetened with
3 tablespoons sugar
Stir in . . . . **1 tablespoon lemon juice**
1/8 teaspoon salt
Pour into trays and partly freeze.
Remove to chilled bowl; beat smooth.
Fold in . . . **2 egg whites,** stiffly beaten
1 cup heavy cream, whipped
Return to trays; freeze until firm.

Rhubarb Crumble

Serves 8

Arrange . . **3 cups diced rhubarb** in 8x8x2-inch greased pan.
Sprinkle with:
2 tablespoons orange juice
3/4 cup granulated sugar
1/4 teaspoon cinnamon
Dot with . . **1 tablespoon butter** or **margarine**
Combine **1/4 cup melted shortening**
1/3 cup brown sugar
Sift together:
2/3 cup sifted all-purpose flour
1/8 teaspoon salt
1/4 teaspoon soda
Mix with **2/3 cup quick-cooking oats**
Blend with brown-sugar mixture.
Spread over rhubarb.
Bake at 375° (moderate) for 40 minutes.
Serve warm with **cream,** if desired.

Fruit-topped for flavor

Four right good cakes that are baked upside down. Simple to make, so easy to eat, pleasing to the eye

Fruit Cocktail Upside-down Cake

Serves 6

Melt in 9x9x1¾-inch pan
2 tablespoons butter
Add . . . . **1/4 cup brown sugar**
Arrange over sugar:
1 cup fruit cocktail, drained
Sift . . . . . **1 cup sifted cake flour**
1 teaspoon baking powder
1/4 teaspoon salt
Beat stiff . . **4 egg whites**
Add . . . . . **4 egg yolks;** beat
Add gradually and beat well:
1 cup granulated sugar
Fold dry ingredients into eggs.
Add . . . . . **1/4 cup cold water**
1 teaspoon vanilla
Blend; pour over fruit cocktail in pan.
Bake at 325° for 1 hour.

—*Mrs. Jennie Hoffman, Minnesota*

Pineapple Upside-down Cake

Serves 6

Melt in 8x1½-inch round layer pan
2 tablespoons butter
Add . . . . . **1/3 cup brown sugar**
Stir over heat until sugar dissolves.
Arrange in syrup:
4 slices pineapple
4 maraschino cherries
Sift . . . . . **1 cup sifted cake flour**
1/2 cup granulated sugar
1 teaspoon baking powder
1/8 teaspoon salt
Add . . . . . **1 egg**
2 tablespoons melted shortening
1/3 cup milk
Beat 2 minutes; bake 30 minutes at 375°.

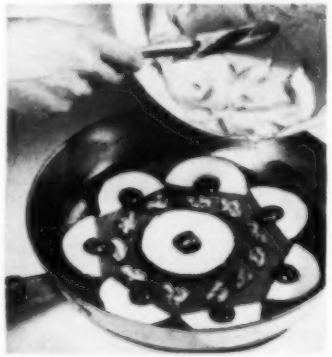
—*Mrs. L. W. Foubert, Iowa*

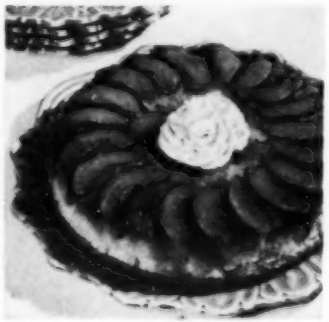
Apple-Honey Upside-down Cake

Serves 8

Melt in a 10-inch skillet, at least 2 inches deep:
- **1/4 cup butter** or **margarine**
- **1/2 cup honey**

Add **2 sliced apples,** unpared
Cook about 3 minutes, turning once.
Sprinkle with:
- **1/2 cup chopped California walnuts**
- **1/3 cup chopped maraschino cherries**





Soften **1/2 cup shortening**
Sift together:
- **1 1/2 cups sifted cake flour**
- **2/3 cup granulated sugar**
- **1/2 teaspoon baking powder**
- **1/2 teaspoon soda**
- **1/2 teaspoon salt**
- **1/2 teaspoon cinnamon**
- **1/4 teaspoon cloves**

Add to softened shortening:
- **sifted dry ingredients**
- **1/2 cup brown sugar**
- **2/3 cup buttermilk** or **sour milk**

Beat vigorously for 2 minutes.
Add **2 eggs**
Beat for 2 minutes.
Pour over apple-honey mixture in skillet.
Bake at 350° (moderate) for 45 to 50 minutes.
Allow cake to cool in skillet for 10 minutes.
Turn upside down on large plate.

—Mrs. H. O. Anderson, Minnesota

Peach Upside-down Cake

Serves 6

Combine in 9x1 1/2-inch round layer pan:
- **1/4 cup melted butter** or **margarine**
- **1/2 cup brown sugar**

Cover with:
- **1 No. 303 can (2 cups) sliced peaches,** drained

Beat until light and lemon-colored:
- **2 eggs**

Add gradually, beating after each addition:
- **1 cup granulated sugar**

Sift together:
- **1 cup sifted all-purpose flour**
- **1 teaspoon baking powder**
- **1/4 teaspoon salt**

Add dry ingredients to egg mixture, alternately with:
- **1/2 cup hot water**

Pour over peaches in pan.
Bake at 375° for 30 minutes.
Allow cake to cool in pan for 10 minutes.
Turn upside down on large plate.

—Miss Bertha Rohrich, Nebraska

Treats from a May garden

Five brand-new ways with rhubarb, king of spring fruits—delightful dishes to please all your family

Spring Cobbler

Serves 6

Combine **1 pound rhubarb,** cut in pieces
- **1 tablespoon water**
- **3/4 cup sugar**

Heat till juice bubbles around edge.
Mix **2 tablespoons cornstarch**
- **1/4 cup sugar**

Add small amount of rhubarb juice to make a paste.
Stir paste into rhubarb; boil 1 minute.
Pour into 8-inch round baking dish.
Dot with **1 1/2 teaspoons butter** or **margarine**
- **1/4 teaspoon cinnamon**

Combine **1 1/2 cups biscuit mix**
- **1 tablespoon sugar**

Add **3 tablespoons butter** or **margarine,** melted
- **1/3 cup milk**

Mix with fork.
Drop by spoonfuls over fruit.
Sprinkle with additional sugar for sparkle.
Bake at 400° (hot) for 30 minutes.

Rhubarb-Vegetable Salad

Serves 6

Cook **3 cups diced rhubarb** in
- **1 3/4 cups water** for 5 minutes

Add **1/2 cup sugar**
Stir into **1 package lime gelatine**
Add **1/4 teaspoon salt**
- **2 tablespoons chopped green pepper**
- **1/2 cup finely shredded cabbage**
- **1 cup chopped celery**

Pour into individual oiled molds; chill.

—Mrs. J. S. Moore, Arkansas

What a pity—

the way I used to slave preserving foods!

"Our G-E Food Freezer saves us $120 each year!"

"Not until we actually had a G-E Food Freezer in our home did I fully realize how easy and simple it is to freeze foods!

"And, we save at least $120 a year with our General Electric Food Freezer. It already has paid for itself!"

New 1952 Freezer is compact!

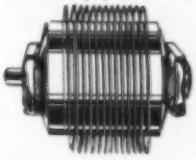
The new General Electric Food Freezer takes little floor space—only 48" in length and 32" in width—yet it holds 389 pounds of frozen foods! It's a real space-maker!

Built into this new freezer, too, are new engineering advancements and new convenience features not available in any other freezer.

See this spacious General Electric Freezer at your General Electric dealer's soon. General Electric Company, Louisville 2, Kentucky.

20% quieter than previous, quiet G-E models. G-E puts nature to work—uses a *natural* draft instead of fans.

Even a small woman can reach into every corner of the G-E Freezer. It is only 25 inches deep, yet holds so much!



Cost 13 per cent less to operate than former economical models. G-E Freezers are as thrifty as G-E Refrigerators.

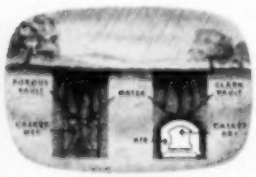
FOOD FREEZERS

Trim and specifications subject to change without notice.

GENERAL ELECTRIC

*WHEN YOUR HEART IS REACHING HARDEST FOR CONSOLATION . . . you find the deepest comfort in your choice of a Clark Grave Vault. For you know that Clark provides not alone the finest tribute, but the most trusted protection against water from the rains and snows.**

***THE CLARK GRAVE VAULT** is made of enduring metal. It is *scientifically designed* to keep water in the ground from reaching the casket. A vault improperly engineered cannot do this. Neither can one which is porous—through which water can seep.



FREE 28-PAGE BOOKLET, "My Duty." Tells those who must take charge "what to do." Write for your copy. The Clark Grave Vault Company, Department SF-5-2, Columbus, Ohio. Copyrighted 1952.

CLARK GRAVE VAULTS

The finest tribute • The most trusted protection

This month

[*From page 4*]

animal husbandry. He now helps to operate the family farm. Quenton is a senior at Purdue and also is majoring in animal husbandry. Stanley is 12 years old and at the present time carries the 4-H banner. Last summer, he placed second in the county 5-acre corn club with an average yield of 145 bushels per acre. He also shows dairy calves at county fairs.

Inside the farm home, Mrs. Williamson displays the same enthusiasm as that of the menfolk. The house is well equipped with modern conveniences, such as running water, a home freezer, refrigerator, and a gas range. All these make life easier.

Besides a busy farm schedule, the Williamsons also find time for outside activities. Mr. Williamson is a member of the local county Farm Bureau and the county Conservation Club. Maurice is chairman of the township Farm Bureau. Mrs. Williamson is a member of the county Home Economics Club. Maurice directs the Methodist Church choir at Economy, Indiana. His musical training stems from Purdue University, where he was a member of the glee club which toured Europe in 1950.—*Vernon Schneider.*

All three boys are active 4-H workers. Ribbons include 3 grand championships, 3 reserves, 24 firsts. Last year, Stanley placed second in 5-acre corn club

Family singing is enjoyed by all. Mrs. Williamson plays piano while Quenton, Maurice, wife sing

Grade-A milk from 25-cow Holstein herd gives added livestock income. Quenton is shown in the middle of the milking chore

Up-to-date kitchen makes life easier for Mrs. Williamson. Modern conveniences include running water, freezer, and gas range

Dinnertime brings Williamson family together. Seated at table (left to right) are Mrs. Williamson, Maurice, Stanley, Maurice's wife, Mr. Williamson, and Quenton

1½-ton shown with 12-foot platform stake—also available on 2-ton chassis

YOU'VE GOT A TRUCK YOU CAN TRUST WHEN YOU OWN A STUDEBAKER

Thousands of profit-minded farmers from coast to coast are numbered among America's hundreds of thousands of Studebaker truck users. Join up with them and cut your hauling costs. Studebaker trucks are stand-outs in gas economy . . . and stay solid and sound for years.

Decorative and other specifications subject to change without notice.

There's a size just right for every farmer's requirements in the comprehensive Studebaker truck line. Your range of choice runs from ½, ¾ and 1 ton pick-ups or stakes to rugged 1½ and 2 ton Studebakers.

Studebaker truck cabs excel in comfort and convenience for the driver. Low floor—enclosed safety steps. Wide doors with automatic "hold-open" stops—window wings. Adjustable seat—Adjusto-Air cushion.

"Lift-the-hood" accessibility to engine, ignition and instrument panel wiring makes a Studebaker truck easy to service at home or on the road. You can reach right in and make all adjustments conveniently.

Foot-controlled ventilation enables the driver to keep the air in the cab fresh—provides extra coolness on hot days. Light duty models have a steering post gearshift as shown.

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FULL TIME HELP ON PART TIME PAY

It's not unusual, it happens every day in thousands of farm homes from coast to coast. For only a few cents a day McDonald Water Systems deliver running water and freedom from water carrying chores.

YOU'LL SING NOT SIGH

AT THE END OF YOUR DAY

Series 2000 Hydro-Jet Deep or Shallow Well

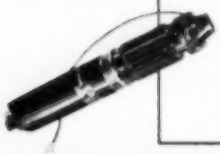
A McDonald Water System brings a host of advantages to your entire family. Plenty of hot water in the kitchen and laundry relieves drudgery like magic. The same is true in the milk house, poultry yard, barn and feed lot. Just a twist of your wrist produces volumes of clean, fresh water.

Series 420 Reciprocating Shallow Well

For over 96 years McDonald has been building pumps. Today, these water systems incorporate the latest designs and time-proven features. Every system is fully tested and guaranteed. Their low cost and steady, dependable pumping capacity will assure more leisure and luxury for you too.

Series 400-600 Reciprocating Deep Well

To learn more about McDonald Water Systems and to add to your knowledge of water requirements, you'll want more vital information. Write to McDonald's today. Ask for "Water System Literature." It will be supplied promptly and without cost. Don't go through another season without the time and labor savings abundantly supplied by a McDonald Water System. Get all the facts. Send a post card today.



A NEW MEMBER . . .
to an illustrious line. McDonald-Sumo Hydro Sub Submersible. Proved by years of dependable, trouble-free operation. Operates down in the well, completely submerged in water. Ideal for deep wells. Easy to install. Requires no adjustments.

A. Y. McDONALD MFG. CO.
Dubuque, Iowa

EST. 1856 McDonald

PUMPS • BRASS GOODS • OIL EQUIPMENT

PRODUCTS FOR FARM, HOME AND INDUSTRY

Soil conservation

[*From page 33*]

services, all working on a certain phase of the conservation problem, would need to co-ordinate their activities. Procedures have been set up and are being worked out to do this. S.C.S., P.M.A., and the county extension agents, along with soil conservation-district commissioners or supervisors, now work together in the development of the Agricultural Resources Conservation Program. Every agency has a part in developing the best over-all conservation plan for the county.

This plan must be broad—based on land capabilities and the needs of the people. It should consider all resources such as cropland, water, woodland, pasture, and so forth.

I believe that developing and keeping current such a program will also serve well as a foundation for annual programs or short-term plans. The A.C.P. program, annual plans for educational activities, the district work plan, and even necessary research projects can be moved forward with greater dispatch and efficiency once effective Agricultural Resources Conservation Programs are in operation.

In view of present and future demands on agriculture, it seems apparent that the conservation job is most urgent. I think it is the public's concern that we do everything possible to speed up the application of conservation measures on the land. We need to make education, technical assistance, and financial assistance—all three—work harmoniously and more effectively as a team in speeding up the shift to conservation farming throughout the United States. **END**

Potash boosts pasture yield

Some farmers have been surprised the way hay and pasture yields have dropped when seeded down the second time.

Myron Bachtell, agronomist at the Ohio Agricultural Experiment Station, says there's a perfectly natural reason. He cites an experiment started at Wooster in 1937. Two test plots received 6 tons of manure and 1,125 pounds of 2-12-6 fertilizer per acre. The 4-year rotation was corn, wheat, and 2 years of meadow. In the first rotation the first-year meadows averaged 6,200 pounds and second-year meadow 8,900 pounds per acre.

For the third and last rotation in this experiment, started 9 years later, comparative hay yields were 5,600 pounds for the first-year and 6,000 pounds for the second-year meadows. The big drop was in yield of the second-year meadow. Bachtell thinks many farmers have had the same experience.

Neither lime nor phosphoric acid was limiting the hay yield, according to Bachtell. With nitrogen being supplied by the manure, this leaves potash as the culprit. Crop yields were estimated to be taking 450 pounds of potash from the soil during the first rotation at high yield levels. Fertilizer and manure replaced only 125 pounds of potash. Thus, the soil was los-

ing 80 pounds of potash per acre per year, most of it leaving with the second-year meadow.

Although not low in potash content, the soil could not continue to give up the chemical in amounts needed by the meadows, especially in the second year of the stand. Corn and wheat have fairly low potash needs, but when time comes for the second successive year of meadow, the soil doesn't release it fast enough.

Help is needed in the form of a little commercial fertilizer. Soils vary in the extra potash needed, and only actual soil tests can show their release rates. But for best results on average soils, Bachtell recommends an annual application of 60 to 80 pounds of potash per acre per year. When applied to the meadows each year in manure and fertilizer, it should make up for the potash used. But don't overlook the need for phosphoric acid, either.

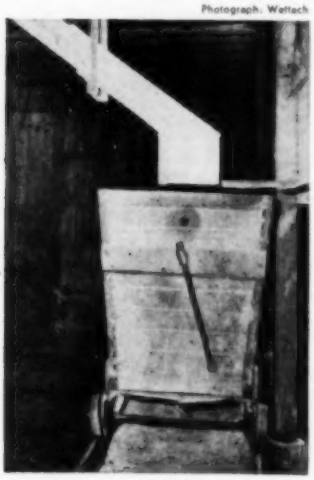
Laborsaving feed cart

This ingenious feed cart makes it possible for one man to feed over 100 head of beef cattle in a few minutes on the S. S. Barton farm, Des Moines County, Iowa. Besides, it's under cover in the cattle shed attached to the barn.

A 50-foot feed bunk was built along the barn side of the shed. It's a stationary-type bunk. The posts supporting the shed roof also suppor. the bunk and make it rigid. (See photograph below). The feed cart is mounted on small, flanged wheels, and rolls back and forth over the bunk. The bottom of the cart is formed by two doors that are opened and closed by a chain wrapped around a hand windlass. Ground feed is elevated into a storage bin in the mow of the barn. A spout carries the feed from the overhead bin to the cart. The shed has a concrete feed floor.

With the silo at one end of the shed, the cart can also carry silage. The shed also has a hay-feeding rack which extends to the mow, so that hay can be thrown directly into the rack with one handling. —*A. M. Wettach, Iowa.*

Photograph: Wettach



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WHAT a guarantee! Armstrong hands you the biggest dollar protection any famous tire manufacturer ever offered! Reason? Armstrong Tractor Tires can take the beating longer and better. Rugged, more flexible Rhino-Flex shock-absorbing carcass. Special traction design delivers extra powerful pulling strength. Open bars clean as they roll. Farmers across the country know the endurance record of Armstrong Tires.

● Look to Armstrong also for passenger and truck tires. Famous Cushion Ride passenger tires *unconditionally guaranteed for 18 months against all road hazards.* Cold rubber treads mean 30% more mileage. Truck tires save you big money—low initial cost, low service cost, longer wear.

LEFT TO RIGHT:
Truck Tire
Cushion-Ride Passenger Tire
Tractor Tire

ARMSTRONG Rhino-Flex TIRES

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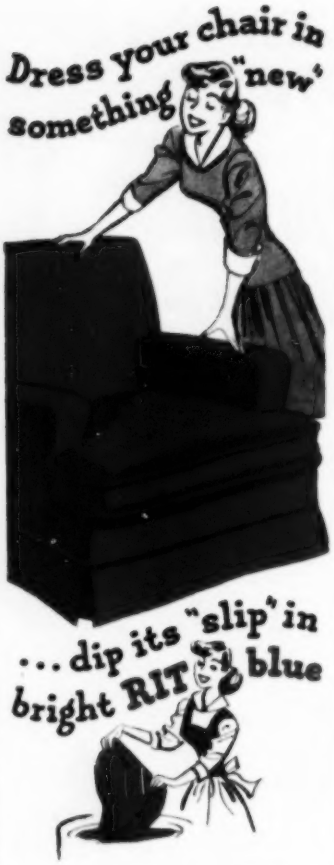

Pick your colors from the Rit rainbow, use your washing machine as a dye pot and, almost before you know it, you'll have slipcovers, draperies, curtains that seem new even to you! Your washer's constant agitation ... plus All Purpose Rit ... give you even the deep tones like Royal Blue and Kelly Green in just hot tap water.

All Purpose RIT

The finest dye ... the *high concentrate* dye ... and only

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RIT PRODUCTS CORPORATION
1437 W. Morris St., Indianapolis 6

Get together with glue

You can stick the head of Sue's favorite doll back on the body, put the handle on a knife, restore broken china, and fix wobbly furniture—all with glue

By Joan Scovel

If you're like most people, you probably have many broken things around the house waiting to be fixed. They may have lots of use left in them, needing only a pot of glue and some know-how on your part to make them as good as new.

Different types of adhesives are available for various repair jobs. Animal glues come in a handy liquid form, and are widely used for furniture joints and all wood joinings where waterproofing is not a factor. Casein glues are sold in powder form, are moisture-resistant, dry quickly, and have good bonding strength. Resin glue, a new product, is completely waterproof and also can be obtained in powder form.

Assemble the equipment before you start your gluing job; you'll need the glue, an enamel cup in which to mix powder-type adhesives, a glue brush, and several clean cloths. When mixing is necessary, blend the liquid and powder thoroughly for a smooth result.

Clean all surfaces to be glued in the manner shown below. After the surfaces are completely dry, smooth them with sandpaper or emery board so the edges to be joined will be close-fitting. If it's a loose joint you are fixing—a chair rung, for instance—put small strips of cloth over the end of the rung until it fits the groove. Always allow glue to dry thoroughly before using the mended article.

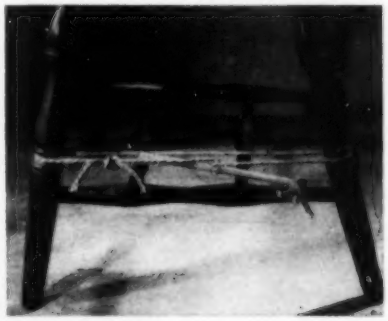
Wood and porous materials require the same techniques for gluing. Coat the material with glue, let dry until sticky, then coat it again, and press the two parts together. To hold them together, use rubber bands or tightly drawn cords, making sure the pressure is evenly applied over the glued surface.

Whenever possible, avoid using warped wood because bent pieces won't fit together securely. But if you must use warped pieces, warm the wood and glue to get better adhesion. The wood can be heated over a radiator or in the oven. Apply extra pressure on warped pieces to prevent their springing apart.

Glass and china need only one coat of glue before the pieces are put together. A resin or waterproof glue is recommended. The list below shows the kinds of glue to use on each of seven materials:

Tile—casein glue, household cement. **Wood**—fish or animal glue, plastic wood. **Plaster**—plaster of paris. **Paper**—rubber cement, mucilage. **Glass**—resin glue, cellulose cement. **Cloth**—casein glue. **Leather**—resin glue.

With a file, remove oil, dirt, or wax that clings to object. Remove old glue with hot vinegar



At right: Hold joints in place overnight with rubber bands, or use other weights and pressures

When mending glass or china, use only one coat of glue, let it begin to set, then join, and it will hold tenaciously. It can be held together with the fingers until dry. Make sure the excess glue is scraped off after it is hardened. A resin glue or cellulose cement is the best. **END**

Photographs: Murray

"We're a 3-generation Maytag family!"

—says Mrs. Earl H. Merritt of New Augusta, Indiana

Meet this 3-generation Maytag family from Indiana: grandmother, Mrs. Neva Merritt of Brownsburg; mother, Mrs. Earl H. Merritt of New Augusta; and granddaughter, Mrs. Thomas Hadley of Danville, owner of this Maytag automatic.

Mrs. Earl H. Merritt, second generation of this family, explains their loyalty to Maytag: "When my daughter, Ann, shopped for a washer, it *had* to be a Maytag. Of course . . . for Ann's grandmother is still using a 1923 Maytag. Imagine . . . it's been washing clothes for nearly 30 years!"

Mrs. Hadley says goodbye to washday work with her new Maytag automatic. "I just set a simple control. Then, I can play with my son, shop, or just rest." Meanwhile, the Maytag automatic washes, rinses, spin-drys, shuts off . . . *all automatically*. Famous Gyrafoam washing action gets clothes really clean. See it today . . . and learn why Maytag has been the most-wanted washer for three generations.

Mrs. Earl H. Merritt finds Gyrafoam action in her 1951 conventional Maytag helps her whizz through a big wash. Daughter Ann (Mrs. Hadley) gives her a hand.

Maytag Dutch Oven Gas Range. Super-insulated oven keeps heat in. Automatic controls. Giant burners. Dutch cooker well. The Maytag range is so easy to clean and to *keep* clean. Built to "CP" standards.

3-generation dealers too! Left to right: father, Arthur E. Naylor; grandfather, A. D. Naylor; and grandson, Howard Naylor. All are Maytag dealers in Oakland, Maryland.

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Only Ray-O-Vac provides this sealed-in-steel protection. So always get genuine Ray-O-Vac LEAK PROOF flashlight batteries that give you . . .

Each Battery Carries This Guarantee:
"If your flashlight is damaged by corrosion, leakage or swelling of this battery, send it to us with the batteries and we will give you FREE a new, comparable flashlight with batteries."

Only Ray-O-Vac LEAK PROOF flashlight batteries are *sealed in steel!*

1. **Steel top**
2. **Multi-ply insulation**
3. **Steel jacket**
4. **Steel bottom**

Buy Spares – they stay fresh!

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Tasty ways with toast

Toast seems to be such an important part of breakfast that it shows up nearly every morning of the 365 in the year. Still, no matter how hot or well buttered, it's bound to get a bit "old hat" unless you vary it occasionally with a few new ideas.

These toast recipes will do much to make breakfast at your house a more interesting and pleasant meal. They're simple to fix, too—take just a few extra minutes.

Applesauce Toast

Top . . . . . **buttered toast** with
hot, sweetened applesauce
Sprinkle **crisp bacon bits** over top
Serve piping hot.

Spiced-honey Toast

Makes 6 servings

Heat . . . . . **1 cup strained honey** in top of double boiler with
3/4 teaspoon cinnamon
1/4 teaspoon nutmeg
Spread 1 to 2 tablespoons honey over each of
12 slices buttered toast
Serve piping hot.

Orange-Honey Toast

Makes 6 servings

Combine **3 tablespoons grated orange peel**
3/4 cup honey
Spread 1 tablespoon of the honey mixture on each of
12 slices toasted bread
Put under broiler for 3 minutes, or until honey mixture bubbles.
Serve piping hot.

Waffle French Toast

Makes 4 servings

Combine **1/2 cup milk**
1 beaten egg
Add . . . . . **1/8 teaspoon salt**
2 tablespoons salad oil
Dip . . . . . **4 slices whole-wheat bread** in egg mixture
Bake in hot waffle iron until browned.

Brown-sugar Toast

Makes 6 servings

Cream together until light and fluffy:
1 cup brown sugar
½ cup butter
Add . . . . **2 tablespoons light cream**
2 teaspoons lemon peel
Mix well.
Spread brown-sugar mixture over one side of each of
12 slices toasted bread
Place toast, spread side up, on an ungreased cooky sheet.
Toast under broiler for 3 minutes, or until brown sugar bubbles.
Serve piping hot.

Orange Marmalade French Toast

Makes 4 servings

Combine **2 beaten eggs**
½ cup milk
½ teaspoon salt in shallow bowl
Dip . . . . **8 slices bread** into egg mixture
Melt . . . . **¼ cup shortening** in heavy skillet
Add bread slices and pan-fry on both sides, 5 minutes in all.
Combine **2 tablespoons butter** or **margarine**
2 tablespoons orange marmalade
Spread on 4 slices French toast.
Cover with remaining toast.
Top with **orange slices.**

Caramel-Nut Toast

Makes 6 servings

Combine **½ cup butter** or **margarine**
½ cup brown sugar
Spread on one side of each of
12 slices toasted bread
Top with **½ cup chopped walnuts**
Place the toast, spread side up, on an ungreased cooky sheet.
Toast under broiler for 5 minutes, or until topping bubbles.
Serve piping hot.

Broiled Cinnamon Toast

Makes 6 servings

Spread . . **1 teaspoon butter** on one side of each of
12 slices toast
Combine **¼ cup sugar**
1 teaspoon cinnamon
Sprinkle 1 teaspoon of sugar mixture over buttered toast.
Place toast on ungreased cooky sheet.
Toast under broiler for 3 minutes.
Sprinkle with **powdered sugar.** END

The loveliest thing this side of Spring!

Give a bright "hello" to Spring with this super-scrumptious Devil's Food Cake! Follow recipe on package—top with

Chocolate Frosting

Make 7-minute frosting, using 2 egg whites. Add 2½ squares Baker's Unsweetened Chocolate, melted and cooled slightly, stirring gently. (Do *not* beat mixture.) Spread between layers and on top and sides of cake. Then melt ½ square Baker's Unsweetened Chocolate with ½ tsp. butter; cool. Make swirled effect by dipping teaspoon in chocolate mixture and forming half-moon swirls in frosting.

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THE Farm

By Gus Larson

How old must an orchard be before it shows a profit? Can food deteriorate in a home freezer? How much butterfat must a cow give to pay her way? If you want to check to see how you figure the dollars-and-cents side of farming, let's begin.

Score 5 points for each correct reply. If you score (a) 90 to 100 points—excellent. (b) 75 to 85 points—good. (c) 50 to 70 points—passed. (d) 45 points or below—not good enough.

1. In 1951 there were 1,650 artificial-breeding units served by 2,000 bulls. Over 4 million cows were enrolled. What percent of all cows in the United States were bred artificially in 1951? (a) 15 (b) 2 (c) 50.

2. A cow lives from 9 to 15 years; a horse 20 to 25 years; an elephant 60 years. But a newborn baby girl today can expect to live to age (a) 60 (b) 65 (c) 71.

3. Orchard grower Fred Smith said: "An orchard must be at least 12 years old before production is high enough to show a profit." Is Fred (a) right (b) wrong?

4. One Illinois farmer produced 90,000 pounds of pork, 2,430 dozen eggs, 3,200 bushels of corn, and 1,800 bushels of oats last year. How many acres did he farm? (a) 160 (b) 300 (c) 500.

5. There's a new variety of garden snap bean that is stringless, slow to wilt, and resistant to major bean diseases. This 1951 gold-medal winner is named (a) Wade (b) Ben (c) Newman.

6. A home freezer is not a "bank" or safety deposit vault where food may be kept indefinitely. The food loses value if kept too long. Statements are (a) true (b) false.

7. Where did most of our small grains and vegetables originate? (a) right here in the United States (b) in the Middle East (c) northern Europe.

8. Suppose brood sows were fed deficient rations before breeding and for 30 days after breeding; they were then fed well the last 84 days before farrowing. Would sows probably farrow (a) normal pigs (b) unhealthy ones?

9. Scientists are now taking the lignin out of sawdust with high-voltage electrons. This means that sawdust may soon make an inexpensive feed for cows. (a) true (b) false.

10. To make a profit on a cow, she must produce quite a bit more than 200 pounds of butterfat a year. A 200-pound producer is seldom worth her keep. Statements are (a) true (b) false.

Quizbox

11. Neighbor Victor Haney says: "Give a new calf colostral milk for a few days. It will help protect against disease." Mrs. Haney argues, "Just an old-fashioned idea." Who is right? (a) Vic (b) Mrs. Haney.

12. A flock of pullets had been laying 75 percent. They were then moved to new quarters and their laying dropped to 35 percent. Drop was caused by (a) move (b) some other factor.

13. Before slaughter, hogs should be given plenty of fresh, clean water to drink. Also, the hogs should not be fed for (a) 10 hours before slaughter (b) 24 hours before slaughter.

14. For best growth, dairy heifers must be fed grain continuously from the time they are a few weeks old until they are ready to calve. (a) true (b) false.

15. In the early morning of April 30, 1900, Casey Jones drove his famous Cannonball No. 1 to his death. The engine he crashed bore the famous number (a) 101 (b) 382 (c) 150.

16. A new gold-medal-winning lettuce is especially well flavored and will grow anywhere lettuce will grow. Rich in vitamins C and A, this lettuce is named (a) Henry V (b) Salad Bowl (c) Heidi.

17. Ladies, your feet are beginning to show. Can you guess how much longer the average woman's foot is today than it was in 1930? (a) 1 inch (b) 2 inches (c) ½ inch.

18. Planning to lay some tile on your farm? If so, always buy the highest-priced tile because it always stands up the best. (a) good advice (b) poor advice.

19. Do you have any idea how many pounds of food each person in the United States eats each day on the average? Would you guess (a) 4.3 pounds (b) 2 pounds (c) 1 pound?

20. The folks in Mother Goose nursery rhymes were real people. Who was Mary, Mary, Quite Contrary? (a) Queen Elizabeth (b) Mary, Queen of Scots (c) Helen of Troy.

Answers on page 82

Home heating headquarters

Your Certified Lennox Dealer is the most competent and dependable heating authority to see for heating satisfaction and complete service.

He can tell you why Lennox warm air conditioning is BEST for real indoor comfort.

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For PROTECTION

Only galvanized sheets give you the strength of steel . . . the rust protection of zinc. Both are important in providing a strong, sound, leak-proof roof that double-guards valuable crops, livestock and machinery against damage and destruction for years and years. It's the first choice of farmers.

For STAYABILITY

Galvanized roofing holds at the nail holes . . . stays leak-proof and solid year after year with a minimum of maintenance. Farmers say it cuts down overhead by staying "overhead"—often for the life of the building.

For ECONOMY

Consider the economy of any roofing material with these three long-time cost factors in mind: (1) original price; (2) repair and upkeep; (3) years of serviceable life. Galvanized sheets are first choice of farmers because they know that the roof that gives them the longest, trouble-free service is the cheapest in the long run.

DON'T FORGET

Proper care pays! Material shortages are limiting new construction and replacement. Careful maintenance of present structures is more essential now than ever before. Expanding production of zinc and steel means ample supplies of galvanized sheets with the return of more normal conditions. In the meantime, a few simple steps with very little labor can extend the useful life of your galvanized roofing. The valuable booklets described below will tell you how.

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Without cost or obligation, send the illustrated booklets I have checked.

- ☐ Facts About Galvanized Sheets
- ☐ List of Metallic Zinc Paint Mfrs.
- ☐ Directions for applying Galvanized Sheets
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- ☐ Use Metallic Zinc Paint to Protect Metal Surfaces

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ADDRESS_____

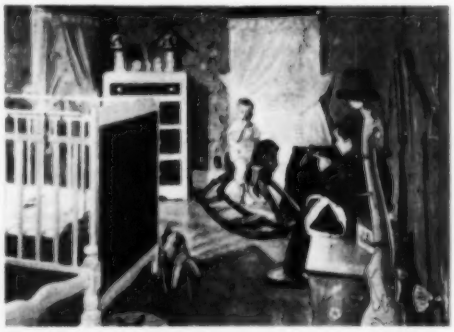
TOWN AND STATE_____

Send for FREE Booklets

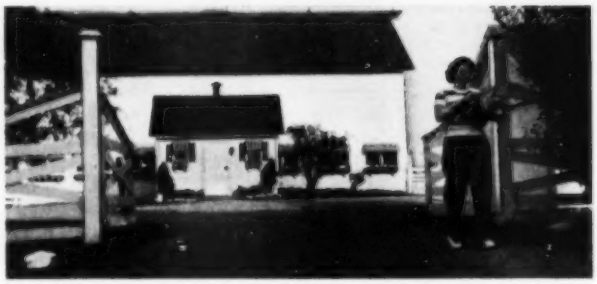
A lot of life in a tired farm [From page 39]

A healthy interest is taken by Gary in the new calf crop. Selling off some of the heifer calves has proved to be profitable

There's time to relax at the Price farm, too. The beautiful lawn and outdoor furniture gets its share of use in the summer



The boys' room is as attractive as it is usable. Mrs. Price has a special knack of inexpensively decorating her home. The boys' room is a good example of what can be done without spending great amounts of time, cash



The Prices have a deep pride in what they have been able to accomplish since they moved on the neglected farm. This view, looking toward the milkhouse and dairy barn, is one example of how they put new life into a run-down farm. END

Protect silo from grass silage

Before putting grass silage in a silo, here are 3 different treatments that may be used to protect wall surfaces against the strong acid in the juices of legume and grass silage. In the case of new silos, one of these treatments should be applied when the silo is erected. The 3 treatments recommended are magnesium fluosilicate, cumar, and linseed oil. The linseed-oil treatment is least difficult to use, and is described here:

1. Clean wall as for application of cement wash. Apply plaster coat if wall is rough, and allow it to dry thoroughly before applying the linseed-oil treatment.
2. Use boiled linseed oil because of its quicker drying.
3. Thin the oil with equal parts of turpentine for the first coat, and allow it to dry thoroughly.
4. Apply linseed oil without thinning for the second coat. Spots where the oil is absorbed, leaving a flat surface, should have a third coat.
5. Allow the last coat to dry 2 weeks before the silo is filled. One gallon of linseed oil will cover about 200 square feet with 2 coats.

Capture the GREEN FLAVOR *with your own Forage Harvester*

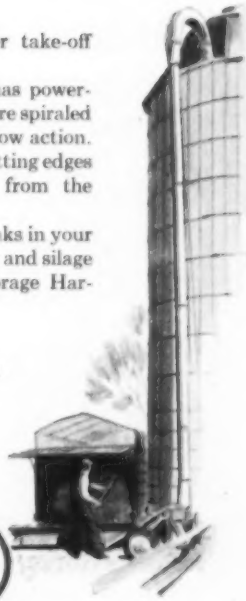
Nutritious "green" flavor is the secret of choice quality hay or silage.

Watching the field, you can tell when legume blossoms are just right, when corn is at the proper stage of dent. Then is when you need your *own* Forage Harvester, ready to pull into the field without an hour's delay.

The Allis-Chalmers Forage Harvester is priced for home ownership. It has the well-known "*wide-flow*" design of Allis-Chalmers harvesting machines. The crop is fed through the cylinder in a wide, even stream . . . the key to big capacity with power take-off operation.

The three-foot wide cylinder has power-saving, cup-shaped knives. They are spiraled to give easy shearing, cut-and-throw action. A *built-in knife sharpener* keeps cutting edges keen without removing blades from the machine.

Be ready when the weather breaks in your favor. Make the best-flavored hay and silage you ever fed, with your *own* Forage Harvester and Forage Blower.



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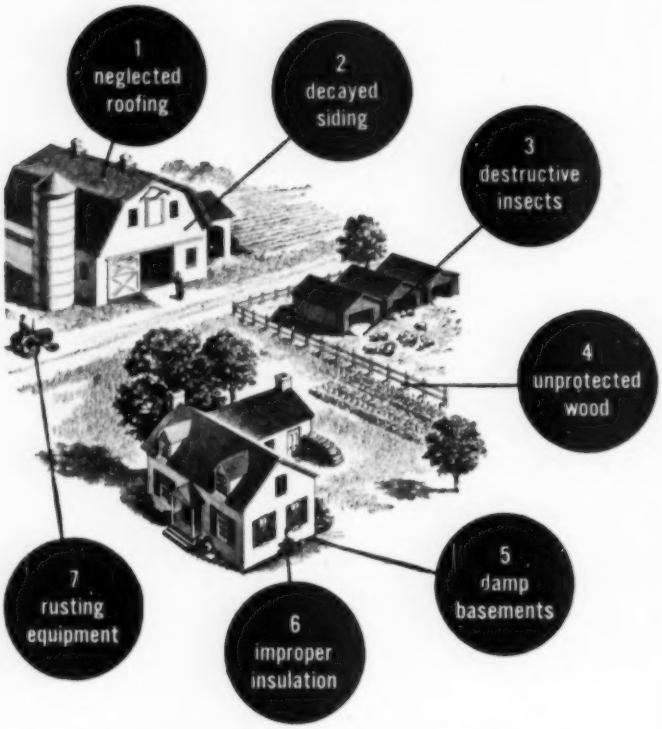
which of these 7

HIDDEN DESTROYERS

are threatening your farm investment?



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How much roughage?

[*From page 37*]

The feed cost per cow (on the basis of 1949 prices) for the high-roughage herds was $188 per year. Compare this with feed costs of $233 for the herds fed little roughage, and you have *a saving of $45 a year on each cow's feed bill*. Or, figure it this way: The total feed cost for milk on a 4-percent fat-corrected basis was $2.47 per hundredweight for the high-roughage group, compared to $3.08 for the other group. Thus, *liberal roughage feeding saved 61 cents in the cost of feed to produce 100 pounds of milk.*

An ardent exponent of grassland farming is Joe Atkinson of Cumberland County, New Jersey. A short time ago, Atkinson was first-place winner of the New Jersey Green Pasture Program. He pastured his 36-cow milking herd on lush, green pasture for well over 7 months, and was able to keep his young stock on pasture for nearly 9 months.

Atkinson is really sold on Ladino clover. He uses it in combination with both orchard grass and brome. Permanent bluegrass pasture also helps him stretch the grazing season, and 8 acres of Sudan grass fills in a midsummer gap.

The value of Atkinson's quality pasture shows up in his grain-feeding program. In the winter, he feeds 1 pound of grain for every 3 pounds of milk produced. However, during the 7-month grazing period, *he cuts grain feeding to 1 pound of grain for each 10 pounds of milk produced*—and this without loss of flesh or production.

Says Atkinson: "To me, pasture is definitely the cheapest and most palatable feed for all dairy animals. At all times, I try to provide enough good pasture for young stock as well as the milk cows."

Atkinson likes to summarize his previous year's program in order to plan for the future. "I plan to seed down about 3 acres of improved pasture each spring and fall," says Atkinson. He uses September-seeded rye for fall and spring pasture, and Sudan (1 acre for every 5 cows) to carry his cows through the hot summer.

Another feature of Atkinson's pasture program is the use of 11 pastures, divided by an electric fence, in an intensive system of rotational grazing. The pastures range from 2 to 9 acres each, and radiate out from the barns. Three-fourths of these pasture areas have water available. When on the other strips, the cows have to be brought in for water.

> **Whenever you have an argument with a fool, make sure that he isn't similarly engaged.** —*Anonymous*

Each pasture is clipped soon after the cows are shifted to a fresh plot. This evens up the growth and gives the plants a fresh start. Then, Atkinson windrows the clippings and lets them lie. When the cows return, they eat the cured hay along with the fresh grass.

Fertilization also helps keep the pasture lush and succulent throughout the growing season. About 500 pounds per acre of 5-10-10 is used when the pastures are seeded. And, in addition, all the Ladino pastures are top-dressed annually with 500 pounds of 0-14-14.

Green pastures also rule the Franklin

Rue and Sons farm of Monmouth County, New Jersey, first-place winner of the 1949 Green Pasture Contest. The Rues have 50 acres of grass-legume pasture, 40 of which are on tillable land. These are divided into five fields which are grazed in rotation. One of these is seeded to orchard grass and Ladino, three consist of brome-Ladino mixture, and the fifth is alfalfa, brome, and Ladino.

The orchard grass-Ladino is especially noteworthy. It was originally in bluegrass and white Dutch, but was renovated some years ago by discing thoroughly and reseeding to the orchard grass and Ladino. Now, very little bluegrass is to be found.

The Rues find that orchard grass is a vigorous grower which comes on early in the spring and provides pasture before the other grasses and clover are ready. It also stays green all summer. In May the Rues cut and bale their surplus pasture for hay. This comes in handy later in the summer. Soybeans are also used for late-summer pasture. If they don't need them for pasture, the beans are cut for hay.

> **A person is very shortsighted if he can't see the other fellow's duty.**
> —*Herbert V. Prochnow*

Tipton Randolph, also of Monmouth County, New Jersey, is convinced that roughage feeding, winter and summer, is the best thing for dairy cows. Some of his 35 head of Holsteins and Guernseys eat 80 pounds of grass silage per day.

Randolph keeps 30 acres in permanent pasture, 28 in hayland, and uses 10 for annual supplemental pasture. Last year, the 10 acres were seeded to winter rye into which the cows were turned the first of April. When the rye was grazed down he plowed and seeded the field to Sudan grass for midsummer pasture.

Yes, grassland farming is winning new converts every year. Likewise, more dairymen are finding that *heavy grain feeding is not necessary to maintain production if quality roughage is fed.* The weather still plays a big hand in determining the quality of winter roughage, but grass silage, new curing methods, and improved storage facilities all help whip this problem.

A good roughage program will go a long way in keeping your feed costs down and net income high. In the end, as the price squeeze closes in, this may well determine whether the dairyman stays in business or not. **END**

SUCCESSFUL FARMING

"Three near the aisle, please."

Planting is *Heavy Duty* Work!

Tractors Need This Heavy Duty Motor Oil!

During planting season, a tractor engine must run long, hard hours. It has to be in good condition—or it costs you in time as well as money. Protect your tractor with Phillips 66 Heavy Duty Premium. This great new motor oil helps keep your tractor out of the repair shop and on the job. It will save you money in the long run. Remember, it's made to protect engines operating under "heavy duty" conditions. Get it from your Phillips 66 Dealer or Tank Truck Driver.

Check the advantages you get with Phillips 66 Heavy Duty Premium Motor Oil . . .

LOW OIL CONSUMPTION: Phillips 66 Heavy Duty Premium Motor Oil resists decomposition—keeps oil control rings free. Fewer make-up quarts are needed over long hours of operation.

BEARING PROTECTION: Engine acids are neutralized—so that bearing surfaces are effectively protected against pitting.

CLEANING ABILITY: A clean engine means more power, and less fuel consumption—better all-round performance!

WEAR PROTECTION: It keeps corrosion and friction from harming your engine—guards piston rings and cylinder walls.

FOR YOUR CAR, TOO! Phillips 66 Heavy Duty Premium Motor Oil provides that extra measure of protection for your car.

Listen to Rex Allen and the Sons of the Pioneers over C.B.S. See your local paper for time and station.

GET NEW, IMPROVED *"Lubri-tection"*

Need a CHIMNEY?

YOU, YOURSELF... CAN INSTALL A VAN-PACKER Packaged Masonry CHIMNEY

Costs less—You can easily install a Van-Packer Complete Chimney in about 3 hours. Entire chimney is packaged with all parts—nothing else to buy. Even roof flashing, rain cap and prepared cement for the joints is furnished. Saves up to 50% over brick construction.

No special skill needed. It's as easy to build as this. (1) Nail Van-Packer Chimney support in place. (2) Set each section and cement with prepared acid-proof cement furnished. (3) Nail flashing to roof, slide housing over sections, and cement rain cap in place.

Underwriters' Laboratories tested and approved as absolutely fire-safe for all fuels. F. H. A. accepted. Approved by major building codes everywhere. If you need a chimney for your home or building, get free literature by mailing the coupon below. Or see your building supply or heating supply dealer.

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Chicago 4, Illinois
Please send me your free folder on Van-Packer Packaged Chimney and name of nearest dealer.

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Also Manufactured and Distributed in Canada by C. A. McRobert and Son, Ltd., St. Laurent, Quebec

Hog house divided—more room

This hog house serves two purposes. Melvin Teuscher, Fisher, Illinois, first uses it for a farrowing house. Later he uses it as range shelter for his pigs.

The house is built in two sections, each mounted on runners. Each section is 8'x18' but the end walls are only 7' long. The floor and the roof project out another foot. At farrowing time the two sections are placed so the floors and tops join. Each section is divided into three 6'x7' pens. The 2' space provided by the projecting floors and roofs is used for a feeding alley, with 3 pens on each side.

When the house is used as a range shelter, the two sections are placed opposite each other, with a 14' space between. The 14' space is covered, making a good sun shelter and doubling the size of the house.—*Harry L. Spooner.*

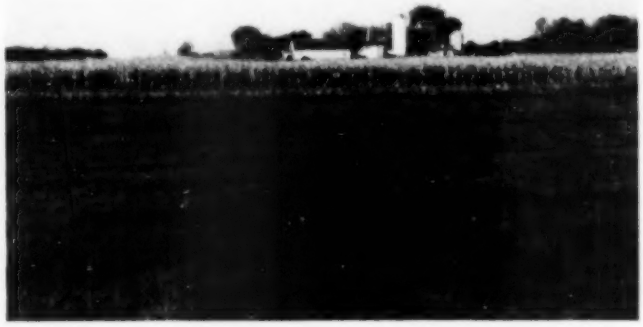
From wet land to good pasture

A flat, low spot in a field (pictured below), which never seemed to dry up, has been turned into a high-yielding dairy pasture by Elmer Zimmerman, Jefferson County, Wisconsin. His first step was to tile it out. Then, he needed a pasture mixture which would tolerate this wet spot. A Ladino clover-alsike clover-red clover-brome mixture supplied the answer.

Last summer he pastured 35 head of dairy cows for 60 days on 13 acres of this lowland pasture. The field was divided into 2 fields and the cows were rotated back and forth. After shifting the cows to a fresh field, Zimmerman clips the pasture to give it a fresh start. He is sold on pasture rotation and believes he can boost the yield from 35 to 50 percent, depending on the season.

Each spring the 13-acre field is top-dressed with barn manure and 300 pounds of 10-10-10 per acre. Ladino clover gets a lot of credit for these top yields as it seems to do better on wet soil. In former years, Zimmerman's alfalfa killed out on the wet ground.

Photograph: Schneider



Do you have a question?

Through our Farm and Home Service Bureau, *Successful Farming* offers you individual, personal-letter help with your individual problems.

This service is offered to you without any charge whatever.

In order that we may form an accurate picture of your questions, outline all details clearly when you write. If referring to a magazine article, mention page number and month of issue.

Address your inquiry to The Farm and Home Service Bureau, *Successful Farming*, Des Moines 3, Iowa.

"Steel buildings are just the thing for cows"

says Robert Schaller, Onalaska, Wis.

Mr. Schaller wrote us a letter about his new steel-roofed dairy barn. Here's what he said:

"We put up a 42 x 144 steel barn in the fall of 1950 and it's completely satisfactory in every way.

"The barn was built to accommodate a 100 cow milking herd to be used for sleeping quarters only. At the present time we have about 65 head.

"Steel is good and strong so it makes an ideal roof framing material. Ours is all-welded construction. As you can see from the pictures, the entire roof span of 42 feet doesn't need a single support column. The cows can move around freely and you can drive anywhere you like with a manure loader or spreader.

"We get some bad storms around here but I'm sure that no matter how bad they are the roofing sheets will stay on good and tight. The sheets are strong and stiff and they don't work loose around the holes. A hole was drilled through each sheet into the steel roofing member, then the sheets were pulled down tight with self-tapping cap screws. There's a steel-lead washer under each screw. The steel furnishes strength and the lead scrunches down into the hole and as a result we've never had any leaks that I've noticed.

"Steel buildings are just the thing for cows because they stay tight and keep out wind and rain. We went through the rugged winter of '50-'51 without a single sick cow."

Ask any farmer who has a steel building and he'll tell you that *you get more for your money when you build with steel.*

SEND THE COUPON

United States Steel Company, Agricultural Extension Bureau
Room 2801Y, 525 William Penn Place, Pittsburgh 30, Pa.

Please send me free literature about steel farm buildings.

Building will be used for .....

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Approximate size or capacity .....
Send information to:

Name .....

Address .....

County ..... State .....

United States Steel Company is a steel producer, not a steel fabricator. Your request, therefore, will be sent to building manufacturers who fabricate steel buildings for farm use.

U·S·S Galvanized Steel for Farm Buildings

You get more for your money when you build with Steel

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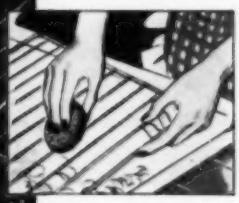
2-648A

UNITED STATES STEEL

Inside Tip—to clean stoves—

use S.O.S to remove burned-on food!

Broilers are easy to clean. The handy shape of S.O.S. cleans grooves and ridges—easy as flat surfaces!



Burnt particles on the oven rack—clean them right off with S.O.S. It "wraps around" each rod and cleans all difficult surfaces!

Grease from meats, juices from pies, clean off like *magic*—from oven liners and doors! *Clean like magic,* because S.O.S. is *especially made* to remove burned-on food quickly and easily!

Broiler pans and drip pans take only moments to clean with fast working S.O.S. Off comes burned-on food and grease—like magic! Try it!

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Freezer problems

[*From page 47*]

won't come from your freezer, as assumed in this calculation.

You will also be using some vegetables and fruits which keep well without freezing, and some which you may prefer prepared in other ways. Raw salad vegetables and a few fruits which don't freeze satisfactorily will be additional supplements. "Staggering" the peak loads of major food supplies will also cut down total requirement, as has been shown.

But, before you start slashing, consider the *other* foods you'll want in your freezer. Breads, pies, ice cream, butter, precooked foods, and leftovers—all are important freezer fare. Most families freeze more of these items once they discover the advantages. These foods can very well "take up the slack" at any time of year that seasonal food supplies are waning.

All your frozen-food storage space need not be furnished by *one* freezer. Rented locker space, used along with a home freezer, is working out well for hundreds of farm families.

Most people find the locker plant does a better job of slaughtering, cooling, and cutting meat than they can do at home. In many cases it is more economical, too. It follows that leaving the bulk of the meat supply at the locker for storage may be most efficient. Storing just enough meat at home for convenience—say a month's supply—saves space for other foods processed right at home.

Two or more separate freezers offer several advantages. One may be used primarily for freezing, the other for storing. Or one may be used for meats, wild game, and fish—the other for miscellaneous foods. With two freezers, it's more likely one can be placed in a convenient location. The possibility that a tremendous weight load will be placed on any one floor area is also avoided. Small freezers can be moved through narrow passageways and around turning stairways where it would be impossible to take a large one.

The freezing compartment of your kitchen refrigerator—if it maintains zero degrees—may contribute to your total freezer area. These extra 2 or 3 cubic feet can serve as a convenient supplement to a separate home freezer or a rented locker.

If your total freezing space is made up of *combinations* of units, you will have a more flexible arrangement. It makes it easier to increase or decrease freezer area—by adding or giving up locker space or one freezer—as your needs change over a period of years.

Take a long-range view in planning your freezer needs. The frozen-food era has barely begun! If it appears that in the future you'll need as much as 30 or 40 cubic feet of freezer space at home, investigate the walk-in cooler and freezer combination.

If a "walk-in" is your aim but not possible right away, a moderate-size home freezer, or one of the combinations already mentioned, may fill the gap.

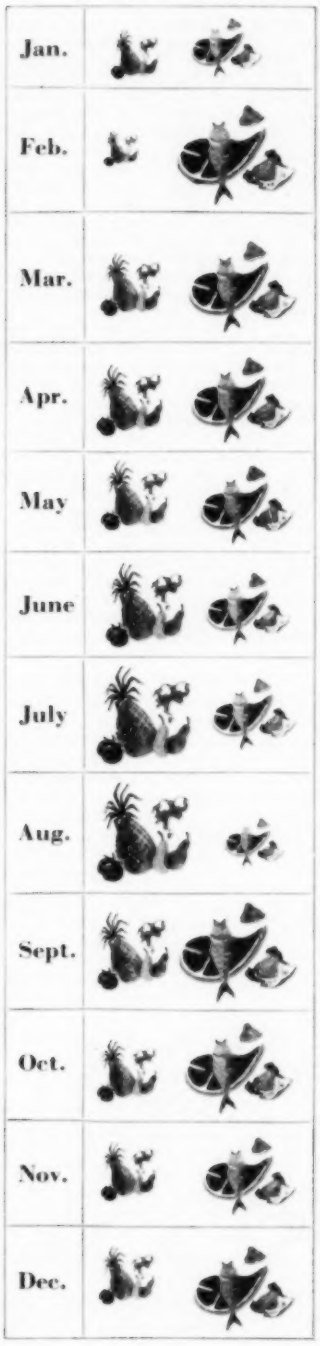
Where is the best place to put our freezer?

Try to put at least *part* of your freezer space in the kitchen. The more convenient it is, the more you'll use it. Even a compact kitchen usually has space for a small freezer of either the chest or upright type or a two-temperature refrigerator.

[*Turn to page 78*

Freezer-load estimate

This shows how replenishing the meat supply twice a year—before and after peak load of vegetables and fruits—can reduce the total amount of frozen-food storage space needed by family.



smooth

NO BUTTONS
NO BUMPS
NO HUMPS

Sealy TUFTLESS

Here are the clues: a lavish lullaby available in twin and full sizes . . . a top as sleek and uncluttered as a flight deck . . . firm as a promise to a best friend . . . and faultlessly free of rest-robbing tufts, old-fashioned buttons-and-bumps! What else could it be but the world's most modern mattress . . . the supremely luxurious Sealy Tuftless? Isn't it time you joined the hundreds of thousands who enjoy this newest, brightest slumber solution?

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666 LAKE SHORE DRIVE • CHICAGO
SINCE 1881—FACTORIES IN PRINCIPAL CITIES

Freezer problems

[*From page 76*]

A room adjoining the kitchen is also near-ideal for a freezer. In a new house design this can be especially planned—as a complete utility room to include laundry equipment, too. In old homes, many an old pantry or closed-in back porch can accommodate the freezer.

If all your freezer space must be located in the basement, garage, or other outbuildings, some of the pleasure in owning a freezer will be lost. It will mean extra stairs and steps. But if one of these locations can be made to meet the mechanical requirements of a freezer, it should be used rather than having no freezer at all.

The manufacturer's recommendations should be followed in placing the freezer. Most of them advise against exposing the unit to frequent temperatures below 40 degrees, placing it in direct sunlight, or next to a direct source of heat.

The floor beneath the freezer should be level, and it must be capable of supporting a heavily loaded freezer.

The cost of operating a well-insulated freezer varies but slightly with normal room temperatures. The saving is certainly not great enough to justify the inconvenience of having the freezer in the basement for that reason alone.

Dampness is injurious to the cabinet structure and finish of a freezer. Some freezers are now designed so the outer walls are always warm to minimize the "sweating" problem. Nevertheless, you should try to counteract extreme humidity if your basement houses a freezer.

No refrigeration unit should be "smothered." Some space should be left free around the back and sides of the freezer so heat from the motor and inside the cabinet can escape through normal air circulation.

How can we organize the foods in our freezer?

"How can I find the foods I want in the freezer without *digging?*" That's the question both homemakers and freezer designers are trying to answer. Here are some ideas on the subject.

1. Use baskets, shelves, dividers, racks, and other accessories furnished with the freezer. Though they lessen the total capacity, they help systematize the contents. Assign permanent locations for each type of food. Put lightweight packages in baskets so they're easier to lift.

2. Stack all of one kind of food together

SUCCESSFUL FARMING

"No thanks! The water's a little too choppy today!"

—from top to bottom in a chest-type freezer, from front to back in an upright. (Keep this in mind when buying packaging materials.)

3. Label every package you put in your freezer! Place all packages so that, without picking them up, you can easily read the labels on them.

4. Buy cartons in assorted types and colors. Let the type of carton used indicate the food that's in it. A similar "keying" system can be worked out using crayons to mark a green "P" for peas, a green "G" for green beans, a black "B" for blackberries, and so on.

5. Use packaging materials you can see through. All-plastic containers, or those with plastic lids, and cartons with cellophane "windows" make contents easy to identify. Reusable plastic bags, available in every needed size and shape, can be used as liners for paper cartons. Or they can be used by themselves if protected with stockinet. Special freezer cellophane can be used for many foods.

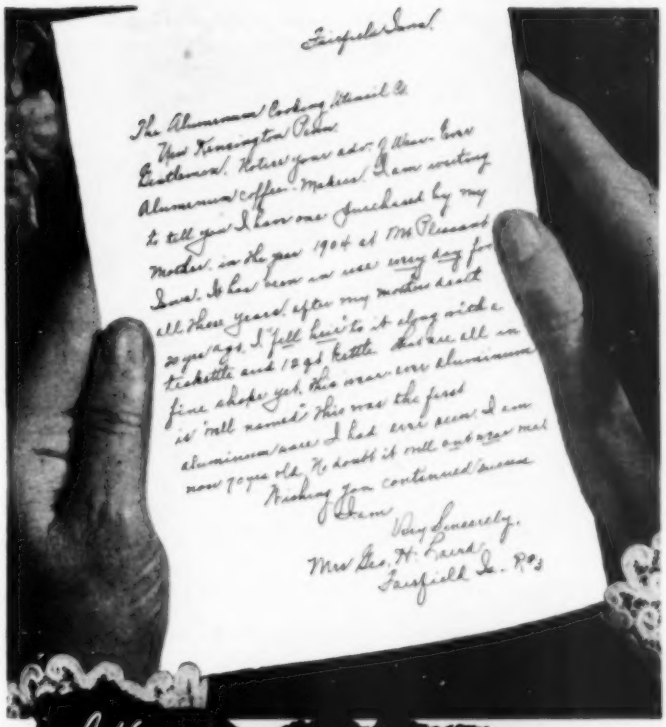
6. Toss together, in one large bag or container, all tiny packages of miscellaneous tidbits such as green pepper, nuts, and pimiento. Do the same to keep together all lunch-box or snack foods such as sandwiches, individually wrapped cookies, and cupcakes. Large plastic bags or square ½-gallon ice-cream cartons work well for this. Fasten together—with freezer tape—groups of foods intended for complete meals.

See "*15 ways to save space in your freezer*," page 158, and "*A counting board for frozen foods*," page 123.

Sunday morning in summer

The Sunday morning silences surround
The farmhouse and the fields, without a sound
Of throbbing tractors or a grader's roar
To beat against the panes, or on the door.
This is the time in which to be aware
Of all the gentle sounds that fill the air:
The turning windmill's slow, metallic knock—
The busy ticking of the kitchen clock;
A pigeon's feathered ruffle in the eaves—
The silver fluttering of sun-warmed leaves;
The scrape of ivy on a window glass
That overlooks the pasture's bending grass;
The steady lowing of a distant cow
Is fainter than a nearby creaking bough.
Through Sunday morning hours one may feel
Pulsations that the days of toil conceal—
The rarer sounds that help the spirit's quest
Upon this gracious seventh day of rest.

—*Reid Crowell*



I "fell heir" to it

Thank you, Mrs. Laird. We take pride in making sure that each Wear-Ever aluminum utensil will last for years and contribute to easier, better meals.

Today's Wear-Ever coffee-makers are even better than before because of scientific research at a great university—to insure utmost deliciousness of coffee.

And *every* silvery Wear-Ever aluminum utensil is "friendly to food" . . . it protects food wholesomeness and flavor—and spreads heat *evenly*.

You may find some Wear-Ever items temporarily out of stock, because of big defense needs. The genuine are worth waiting for.

See Wear-Ever on the ALCOA program, "SEE IT NOW", CBS-TV Network, Sundays, 3:30 P. M., E. S. T.

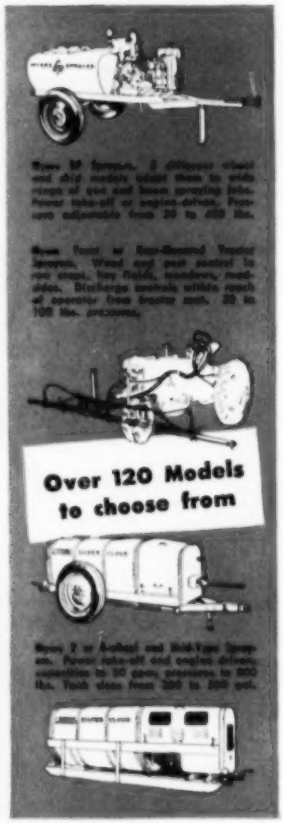
WEAR-EVER TRADE MARK ALUMINUM REG. U.S. PAT. OFF.

WEAR•EVER Aluminum

THE ALUMINUM COOKING UTENSIL CO., DEPT. 5705, NEW KENSINGTON, PA

Corn Borer Treatment Pays $14.25/Acre To Iowa Farmers

No wonder Iowa farmers bought *42,000* sprayers between 1945 and 1950! Iowa State College reports an average $14.25 per acre extra income for corn borer treatment *alone* . . . and this is only *one* of the many uses sprayers are put to.



Other High-Paying Uses For Myers Power Sprayers

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Every year *more* paying jobs are being found for Myers power sprayers. It is estimated that a 320 acre general farm can increase net income by $1990 per year through full use of Myers spraying equipment.

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MYERS

THE F. E. MYERS & BRO. CO., 191 Orange St., Ashland, Ohio

Send free Power Sprayer Catalog

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County _____ R.F.D. _____

More efficient poultry feeds

New developments in poultry nutrition have been brought to light by recent studies at Michigan State College. They concern the practical use of the amino acid methionine and an essential factor in dried whey, which result in significant growth stimulation.

For three years, Albert Groschke and other poultry-nutrition specialists at the Michigan station have been attempting to improve a basic diet composed largely of corn and soybean oil meal plus vitamin and mineral supplements. This ration seems to be best suited for feeding in the Midwest from the standpoint of cost.

Corn-soybean diets containing all the known vitamins, including vitamin B_{12} and an antibiotic, do a good job of raising broilers. However, recent studies have shown that growth can be further improved by adding a dried-whey product plus a small amount of methionine. Both supplements are essential, as neither one alone improved the ration. As a matter of fact, methionine retarded growth when supplemented alone.

However, in combination with the dried-whey product, the growth depression was reversed and a highly significant growth stimulation resulted.

With control rations, the nutrition experts were able to get 2.8-pound average weights with White Rocks at 10 weeks of age on 3 pounds of feed per pound of gain. The same ration, improved with the whey and methionine supplement, resulted in 3-pound average weights at 10 weeks on 2.76 pounds of feed per pound of gain.

More recent studies have shown that a pure chemical compound isolated from whey markedly affects the utilization of methionine. Groschke says they are well on the way in identifying the dietary factor. When they do and that knowledge is applied in formulating poultry feeds, it should result in improved performance of rations.—*W. S., Michigan.*

It's the truth

Bothered with an early-crowing rooster? Build a ceiling 1 to $1\frac{1}{2}$ feet over the roost. When he stands up to crow he'll crack his head. After a few bumps he'll give up. That's the advice of L. F. Payne, Kansas State College.—*Gus Larson.*

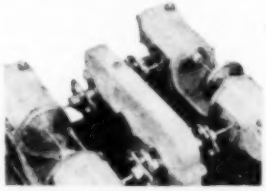
Making the most of MECHANIZED FARMING

BETTER MACHINES MEAN BETTER FARMING TIMKEN BEARINGS MEAN BETTER MACHINES

1. COTTON FARMER CUTS COSTS $22 A BALE

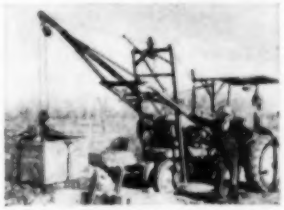
A California cotton farmer, by switching from hand picking to mechanical picking, has cut the cost of harvesting cotton $22 a bale! By completely mechanizing his 4500 acre farm (four of his mechanical pickers are shown above), the farmer has also eliminated migrant labor problems and provided year-round labor for 25 men. This is just one more example of how mechanized farming can mean extra dividends.

To help you make the most of mechanized farming, tractor and farm implement manufacturers mount moving parts on Timken® tapered roller bearings. Equipment is ready for the job when you need it, delays for maintenance are reduced, breakdowns prevented.



2. BETTER TRACTORS START HERE

This laboratory device at the Timken Company tests gears and other tractor transmission parts for stamina and fatigue resistance. Similar devices are used by Timken Company engineers to help design and test related parts as well. This is one of the many ways Timken Company engineers work hand in hand with implement makers to give you the best in bearing performance.



3. QUICK WAY TO UNLOAD PIT SILOS

An additional 8 feet of boom, a hinged-bottom box and sixty feet of cable was all that was needed by farmer Herb West, Prowers County, Colorado, to convert this manure loader into a silage loader. When the box is full in the pit, the winch winds up the cable and the box is dumped onto a truck or wagon.

$10 FOR IDEAS: Do you have an idea like this on making the most of mechanized farming? We'll pay $10.00 for each idea that we accept and publish. Send photo of implement and description to the Timken Company, Dept. SF-4, Canton 6, Ohio.

4. HOW TO FIND VALUE WHEN YOU BUY

You can be sure of value in the implement or tractor you buy if it's equipped with Timken tapered roller bearings. That's because Timken bearings hold moving parts in positive alignment. They reduce wear and practically eliminate friction. Always look for the "Timken Bearing Equipped" label. It's your guide to top value. The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".

Tapered Roller TIMKEN BEARING EQUIPPED

This symbol on a product means its bearings are the best. Look for it when you buy.

NOT JUST A BALL NOT JUST A ROLLER THE TIMKEN TAPERED ROLLER BEARING TAKES RADIAL AND THRUST LOADS OR ANY COMBINATION

SPARX

The Nation's First Proved Sow's Milk Replacement

PROVED FIRST—PROVED SAFE! More than a million pigs have eaten Sparx—the first proven replacement for sow's milk. Thousands like you have watched Sparx help keep their pigs eating . . . living . . . gaining.

FEED SAFELY AT ANY AGE! When sow's milk slackens, start feeding Sparx to supplement or completely replace it. If sows dry up, pigs are orphaned, or early weaning is desired, start pigs on Sparx immediately. Sparx is closer to sow's milk than anything else on the market. The milk nutrients from evaporated buttermilk, vitamins, fats and sugars in Sparx take over safely whenever sow's milk is lacking.

SAFE, FAST GROWTH! How would you like to save 8½ to 9 pigs per litter—wean them 50% heavier than national average—weigh them in at 75 to 90 lbs. each at 90 days? Sparx can help you do just that—help your pigs avoid growth stalls, set-backs from weaning, castration, vaccination, bad weather, digestive disorders, or parasites. Depend on the nation's first proven replacement for sow's milk—Sparx—to help keep your pigs living and gaining. Get a drum or barrel from your feed dealer at once.

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Makers of Semi-Solid Buttermilk, Semi-Solid Emulsions and Kaff-A

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Answers to farm quizbox

[*Questions start on page 68*]

1. (a) is correct. About 15 percent of all milk cows in the nation were bred artificially in 1951, reports the U.S.D.A.

2. (c) is correct. Average girl can now expect to reach age 71, writes Cedric Adams in the *Minneapolis Tribune*.

3. (a) is correct. Dwight Powell, Illinois College of Agriculture, states most growers feel an orchard must be 12 years old before it shows a profit.

4. (a) is correct. University of Illinois reports one farmer producing efficiently achieved this production on 160 acres.

5. (a) is correct. Wade was developed by the United States Vegetable Laboratory and the Southern States Experiment Station.

6. (a) is correct. Missouri Experiment Station tests show that best returns come from regular turnover of food.

7. (b) is correct. U.S.D.A. states most of our small grains and vegetables came from the Middle East, many from Turkey.

8. (b) is correct. G. R. Carlisle, Illinois College of Agriculture, emphasizes the importance of feeding brood sows well during entire pregnancy.

• **9.** (a) is correct. General Electric research scientists report this development.

10. (a) is correct. U.S.D.A. dairy specialists conclude that, regardless of production costs and milk prices, the over-200-pounds rule holds.

11. (a) is correct. Dr. H. J. Hardenbrook, University of Illinois, recommends feeding newborn calves colostral milk for two or three days.

12. (a) is correct. Moving the laying hens to new quarters was likely cause of drop.

13. (b) is correct. U.S.D.A. livestock specialists also recommend that hogs should not be run or otherwise excited.

14. (b) is correct. U.S.D.A. tests show dairy calves can be raised satisfactorily with as little as 500 pounds of grain if they have plenty of high-quality forage.

15. (b) is correct. Casey was killed on the Illinois Central engine number 382.

16. (b) is correct. Developed by U.S.D.A., this medium-green variety is Salad Bowl.

17. (a) is correct. A study by the Brace-O-Lette Hosiery Mills shows the average woman's feet to be an inch larger today than in 1930.

18. (b) is correct. B. F. Muirheid, Illinois College of Agriculture, reports you can't tell high-quality tile by its price.

19. (a) is correct. Average person eats 4.3 pounds of food daily, states U.S.D.A.

20. (b) is correct. Mary, Queen of Scots, was also Little Miss Muffet, writes Katherine Thomas in her book, *The Real Personages of Mother Goose*. **END**

20-inch rows, 51-bushel beans

Paul McLeary, farmer in Dallas County, Iowa, produced 51.21 bushels of Adams soybeans per acre to become Iowa's 1951 soybean king.

When asked how he did it, McLeary said: "I give most of the credit to the 20-inch rows. I figured if I put the soybeans in 20-inch rows, I could get a higher yield and at the same time cut down on erosion from summer rains. And it worked for me."

McLeary said he isn't the only farmer in Dallas County who puts soybeans in 20-inch rows. Other farmers have tried it, he says, with almost as good results. "And one farmer I know has been planting soybeans in 28-inch rows for years," says McLeary.

The champion grower planted 60 pounds of Adams soybeans in 40-inch rows around May 23. When these soybeans were up, he cultivated them once, then planted 40 more pounds of soybeans right between the 40-inch rows. By removing some of the shovels from his tractor cultivator, McLeary was able to cultivate the soybeans in 20-inch rows twice more during the season.

McLeary did not apply any commercial fertilizer or manure to the field on which the soybeans were planted. The field had produced a 70-bushel crop of corn the year before.

"I'm pretty sure the high yield was mostly due to the close spacing of the rows," says McLeary, "because I did about the same thing any farmer would do in growing the beans—except put them closer together."

"Some folks thought I was replanting because the first planting did not grow well," relates McLeary, "but this was not the case. I had a beautiful stand of beans from the first planting. I just wanted to get a higher yield with closer spacing of the rows." **END**

The "G" game

Fill in the dashes with letters so the missing part and the complete word match the definitions given. No. 1 is completed. Solution below.

	Definition of missing part	Definition of complete word
1. G l a d	Boy	Cheerful
2. G _ _ _	Devoured	Passageway
3. G _ _ _	In a line	Enlarge
4. G _ _ _	Not in	Disease
5. G _ _ _ _	Slender	To gather
6. G _ _ _ _	Chamber	Dress smartly
7. G _ _ _ _	Large number	Spirit
8. G _ _ _ _	Relative	Meager
9. G _ _ _ _	Globe	Soil
10. G _ _ _ _	Sword	Quick look

Answers: 1. Glad 2. Gate 3. Grow 4. Gout 5. Gleam 6. Groom 7. Ghost 8. Gaunt 9. Ground 10. Glance

—*William Baumgartner*

What! Sacrifice my $100,000 farm to pay estate taxes?

Was I Hearing Right?

After 20 years and a heap of work, my farm was worth $100,000 easily. I didn't count on selling it ever—let alone in a hurry and at a loss. Fact is, I planned on turning it over to the family. It was their security. The one thing that would keep them well provided for in case something happened to me. Was there something I hadn't reckoned with?

There was—according to this Bankers Life man. He had the facts. Right from his files he showed me the case of a man with a farm the size of mine—and the trouble his family had been through meeting estate taxes after his sudden death. It went like this on an estate of $112,670:

Debts	$14,763
Income Taxes due . .	1,815
Administration Expense	1,986
Attorney's Fee . . .	1,850
Executor's Fee . . .	1,900
State Inheritance Tax .	2,866
Federal Estate Tax . .	6,055
Total Costs	$31,235
Cash in Estate	5,429
Cash needed at once	$25,806

That last item—cash needed *at once*—was the catch. I hadn't figured it would be anywhere near that much. But I did know you can't get a good price for a farm in a hurry.

Well—the law's the law—and it's a good thing the Bankers Life man came along when he did. Without his sound advice my whole life's work would have failed!

A PLAN EVERY FARM OWNER SHOULD KNOW ABOUT!

There is a plan that provides protection against such tragic loss. A Bankers Life Plan that safeguards your farm from the risk of "forced sale" to settle estate taxes. Unless you know exactly what your own situation would be, today isn't a minute too soon to find out. Mail the coupon below. Get the facts. Get absolutely free the booklet that will show how to prevent this happening to *you!*

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Please send my FREE copy of your booklet "How To Avoid The Risk Of 'Forced Sale' To Settle Estate Taxes."

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TAPEWORMS*
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Improvements in breeding, feeding, etc., often make wormy chickens appear normal. Be on the safe side. Get the most from your flock by worming NOW.

WORMAL effectively removes tapeworms, large roundworms and cecal worms without retarding growth or egg production. Easy to use in the feed, **WORMAL**, containing *Butynorate*, is safe, highly effective, palatable and economical.

Worm-free chickens grow faster, lay more eggs. Use **WORMAL** as part of your Year Round WORM CONTROL PROGRAM. Cost is low. Buy **WORMAL** at your hatchery, drug or feed store. Dr. Salsbury's Laboratories, Charles City, Iowa.

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in DRINKING WATER

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Germex
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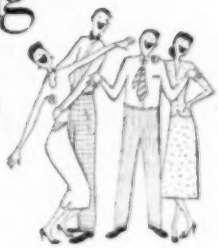
Helps prevent spread of disease through poultry drinking water. Inhibits growth of organisms causing Pullorum, Cholera, Pox, Newcastle and others. Economical—½ pint sanitizes 128 gallons of water. *Also* used as a GENERAL-PURPOSE DISINFECTANT for poultry houses, barns, cows' udders, refrigerators, etc. Buy **GERMEX** at your hatchery, drug or feed store.

Laughing at Life



The Forgotten Man

A father walked into a room where his three children were staging a make-believe wedding. The boy was taking the part of the minister, the older daughter was the bride, and her little sister was the bridesmaid. Their somewhat uncooperative guests were three family pets.

"But where," asked the father, "is the groom?"

"Oh," said his little son, "this is a very quiet wedding. There isn't any groom."

Duty Defined

During a dust storm at one of the Army camps, a recruit sought shelter in the cook's tent. After a moment he remarked to the cook: "If you put the lid on the kettle, you wouldn't get so much dust in the soup."

"See here, my lad," said the burly cook, "your duty, son, is to serve your country."

"Yes," said the recruit, "but not to eat it!"

Voice of Experience

"I've got a job at last, Dad," the young actor reported. "It's a new play, and I take the part of a man who has been married for 20 years."

"Splendid!" said the father. "That's a start, anyway, my boy. Maybe one of these days they'll give you a *speaking* part."

'Nuff Said

"How was the applause after your speech?" asked the fond wife when her husband returned home after an evening engagement.

"Terrible," he moaned. "It sounded like a caterpillar in sneakers romping across a Persian rug."

The Error of Our Ways

(Calls From the News Columns)

Expanding Enterprise

E.O.G. grew to Chicago and back Wednesday on business.—*Lapeer County (Michigan) Press.*

Subterranean Cuisine

Contomo said he did whatever he was told to do on the job. It might be harvesting the farm's vegetables one day and ditch dining the next.—*San Francisco (California) Chronicle.*

Horse Lovers

The couple was honored with a bridle shower Tuesday evening.—*Marionville (Missouri) Free Press.*

Pediatricians Take Note

December 1 is the deadline for filing entries to the Twentieth West Michigan Fat Stork Show to be held December 11-13 in Grand Rapids.—*Hastings (Michigan) Banner.*

SUCCESSFUL FARMING

You're the winner when the crop says go!

HARVESTING BIG ACRES? Then the Oliver "33" Self-Propelled is the combine for you! Everything about it says high capacity, from the 12 or 14-foot header to the oversize grain tank. Wades right through the heaviest stands—starting anywhere in the field. Among its features: 6 speeds forward . . . independent control of threshing and travel speeds . . . always-vertical slats on reel to prevent shattering of grain. Ask your Oliver dealer for full details.

When the crop is ready and the weather is right . . . when you're racing against time . . . *everything* about your Oliver 15 Combine is there to help you win:

Swift Adjustments. No lost time here! Setting your clearance and cylinder speed is as quick as it is easy . . . for grains, beans, grasses . . . for any of a hundred crops.

Bigger Cut. The header on your Oliver 15 cuts a *full six-foot swath.*

Steady Travel. The Oliver 15 is built low to the ground . . . built to take hills and gullies in stride.

Down Crops, Too! Wind and rain won't rob you of your crop. The Oliver 15 accommodates a special finger reel that sweeps the down crop clean.

Have no fear that haste makes waste—not with an Oliver! Oliver gives you the famous "man behind the gun," an *extra* threshing action that assures a clean, full measure even when you're rolling fast.

For steady power, your Oliver dealer supplies an auxiliary engine just made for the No. 15. Or, use your Oliver Tractor's Direct Drive Power Take-Off . . . it holds a constant speed even when the tractor clutch is disengaged.

When your crops are ready, be ready yourself to get 'em in fast . . . see your Oliver Dealer now! The Oliver Corporation, 400 West Madison Street, Chicago 6, Illinois.

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Please send me information on the following equipment:
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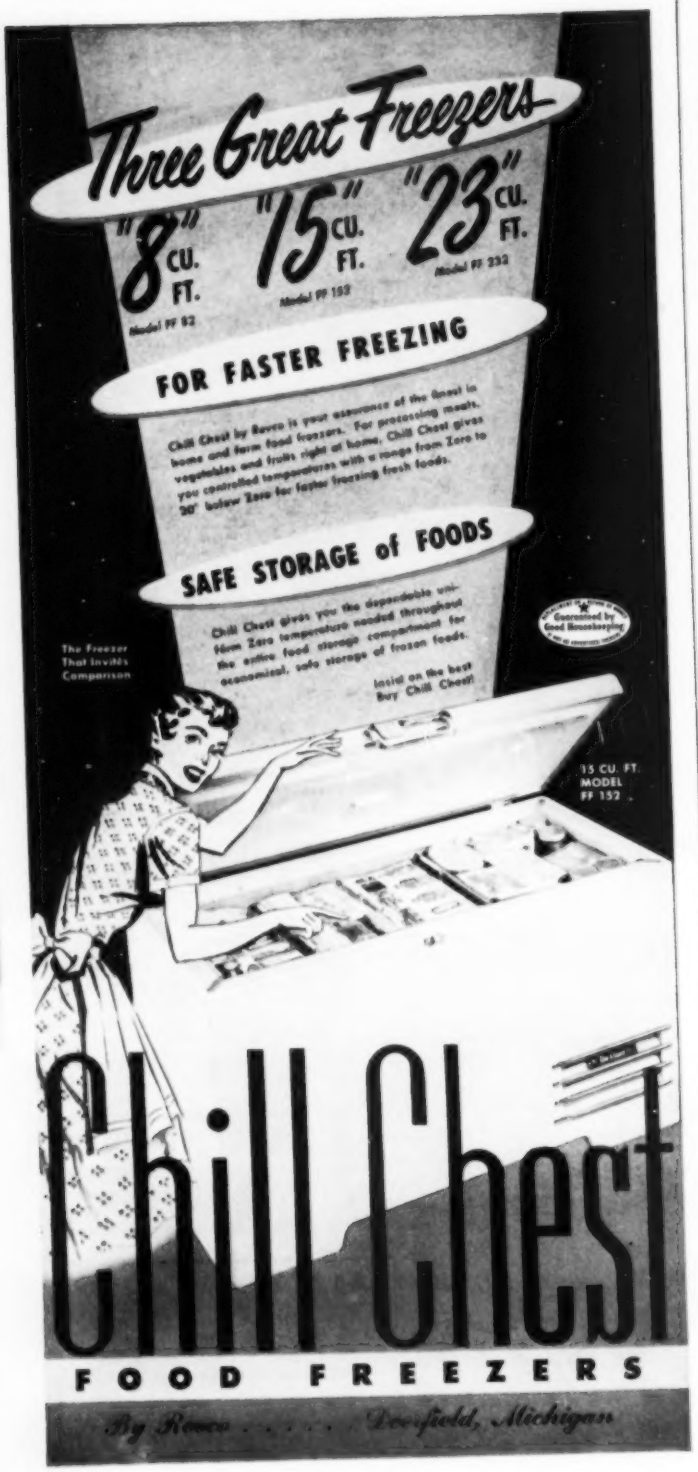

House-dress news

[*From page 42*]

House dresses are the backbone of every farm woman's wardrobe. But to play this role well, they must meet her demands for comfort, easy care, and attractiveness. A big order? Not with the new patterns and fabrics this spring.

First the fabrics! Denim, so wonderful for sturdy working clothes, has exciting things to offer in plaids, stripes, and checks. The woven-pattern denims are now offered in a wide variety of colors and designs. Denims are also available in various weights from light to heavy duty.

Popular plissé is still its practical best as a real ironing saver. It is especially good for the full-skirted styles. More Paisleys and small prints are being shown in plissé this season.

Wrinkle-resistant materials have been improved for home sewing. Because of the chemical treatment which the cotton fibers undergo, the materials are firm, and cutting and sewing are now an easy proposition.

One caution concerning wrinkle-resistant materials. A wrinkle-resistant finish on a fabric means there will be less wrinkling than on an untreated fabric, and that there will be a quicker "recovery" from the wrinkling. It does not mean the fabric will not wrinkle. Treated fabrics are now available in most communities and are sold under various brand names. Check each manufacturer for additional claims, such as mildew- and spot-resistance, faster drying, shrinkage control, easier washing and ironing, and permanent starch finish.

Chambrays are now wrinkle-resistant, too. They are used, along with broadcloth, for dress-up house dresses.

Texture is important in all fabrics this spring. In cotton there are textured prints in the plissés which give a sort of third-dimensional look. Corded cottons include all weights from tucked organdy to suiting, and embossed cottons which resemble piqué are plentiful. A new process called slubbing which produces an uneven weave much like linen has also been perfected this year.

Patternwise, we've found that women know what they want in a house dress. They want their dresses to serve a variety of purposes to take shopping, club meetings, entertaining—and housework—all in their stride. This means dresses must be as functional as they are flattering.

The five patterns shown on pages 42 and 43 were selected because they fulfill the demands of women who sew at home. They represent five popular types of house dresses and include one half-size dress, one styled for the full figure, and three for the average homemaker. Each pattern combines several of the features women prefer in their everyday dresses.

The gored skirts, for instance, are important because they offer freedom of motion without excess fullness. Short sleeves win out with older women because they cover the upper arm without being confining. And all women demand styles that are easy to slip on and off.

Care of clothing is far less of a problem. For we women, in general, are willing to take extra time ironing a dress that is attractive and flattering. A careful choice of pattern and fabric should eliminate most laundering problems.

5441 5537

5441. Wrap-around requires $4\frac{3}{8}$ yards of 35-inch material without nap for size 14 dress. In sizes 12 to 20, the pattern costs 25 cents.

5537. In size 14, the coverall apron takes $4\frac{1}{4}$ yards of 35-inch fabric without nap. Pattern is available in sizes 12 to 20 and costs 25 cents.

5556 5832

5556. Full-figure style takes $5\frac{3}{4}$ yards of 35-inch material without nap for a 44-inch bust size. Pattern comes in 42- to 52-inch bust sizes. Cost is 25 cents.

5832. Dress-up dress in a size $18\frac{1}{2}$ needs $4\frac{3}{8}$ yards of 39-inch material without nap. Include $\frac{7}{8}$ yard of 35-inch interfacing. Half-sizes $12\frac{1}{2}$ to $24\frac{1}{2}$; 35 cents.

5019

5019. Basic washable in size 16 requires $3\frac{3}{4}$ yards of 35-inch material. Available in sizes 12 to 20. Pattern costs 25 cents.

These five Advance Patterns are available in local stores, or use the coupon below.

To: Successful Farming,
4705 Meredith Building,
Des Moines 3, Iowa.

We have enclosed cash or money order in the amount of $..... for the following patterns:

☐ 5441 Size .....
☐ 5537 Size .....
☐ 5556 Size .....
☐ 5832 Size .....
☐ 5019 Size .....

Name .....
Address .....
City ..... State .....

The difference between this...

and this...

is often this...

Yes, farm and family fare better when you get one or more

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WATER-HOTTERS

AUTOMATIC WATER HEATERS ELECTRIC AND GAS

Farrowing and hatching time throw a springtime spotlight on the year-round need for *plenty* of hot, HOT water on the farm. You raise more of each litter and hatch, you save time and expense, when you have an EXTRA *White* Water-Hotter strategically located for use outside the home. Indispensable for dairy farms, large or small!

In the house another economical, efficient *White* is worth its weight in gold! Hot baths help minimize springtime sniffles—hot water lightens laundry labor made heavier by springtime mud—hot water brings the homemaker more blessings "than you can shake a stick at!"

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than most utility requirements, in electric models, because White's exclusive Water Hotter baffle diffuses and tempers incoming cold water.

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Single port burner in gas Water-Hotter means NO clogging ever. Amazingly fast "pick-up" for PLENTY of hot water when you want it.

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Perfume pointers

By Virginia Blodgett

Applying perfume correctly requires more than a simple "dab" behind each ear. What's more, selecting the proper perfume should be a major operation rather than an "I like that pretty bottle" proposition.

A perfume may be flattering to your best friend, have a glamorous-sounding name, and smell perfectly wonderful in its exotically designed bottle, and still be all wrong for you.

For perfume is a purely personal matter. Haven't you known a very lovely someone who always smelled beautifully of some subtle fragrance, fresh violets, perhaps? And always the scent of fresh violets brings her pleasantly back to your mind? That's because she has identified herself with one memorable fragrance.

You can make your own presence a lingering memory in the same lovely way. But you'll have to find your fragrance first—then use the same scent in cologne, bath powder, sachet, soap, face powder, even lipstick, if it's available. It only makes "good scents" to have your toiletries all in harmony rather than competing with one another.

Here are a few pointers that may help you achieve the reputation of being carefully perfumed:

How to choose perfume

1. Determine your personality type. If you're the sleek and sultry type, you can go in for the more exotic perfumes. The Oriental scents will be especially good for

you. The outdoor girl should wear a fragrance that is reminiscent of the fresh smell of pine woods or sun-washed meadows. A dainty and petite young lady needs the delicate flower scents of an old-fashioned garden to complement her personality.

2. Put quality above quantity. Remember, when buying perfume, that a little goes a long, long way. A good perfume is expensive because of the costly ingredients and the process involved in its manufacture. Compare prices, and you'll discover that a tiny bottle of a good scent often costs little more than the jumbo-size bottle of a cheap perfume. But price is no proof of perfection. Many of the popularly priced perfumes are as expertly blended as the expensive varieties. Don't be afraid to question the quality.

3. Try the wrist test. When buying perfume, rub a little on your wrist, let it evaporate, and then decide if it is really your perfume. Wearing a sample for a period of time (perhaps while you do other shopping) will give you an even better idea of the scent. Smelling perfume in the bottle is not an accurate test, as the scent is too strong in concentrated amounts.

4. Don't guess on gifts. If you buy perfume for someone else, use the same consideration that you would in selecting your own. It does make a glamorous gift, but unless you are sure of the likes and dislikes of your friend, an unobtrusive cologne might be a safer bet. Acquaint yourself with firm names. Know reliable perfume manufacturers.

How to use perfume

1. Be subtle! The real fascination in perfume is in its subtle suggestion—a delightful fragrance that is almost undefin-

able. You, the wearer, should not be able to smell the perfume distinctly.

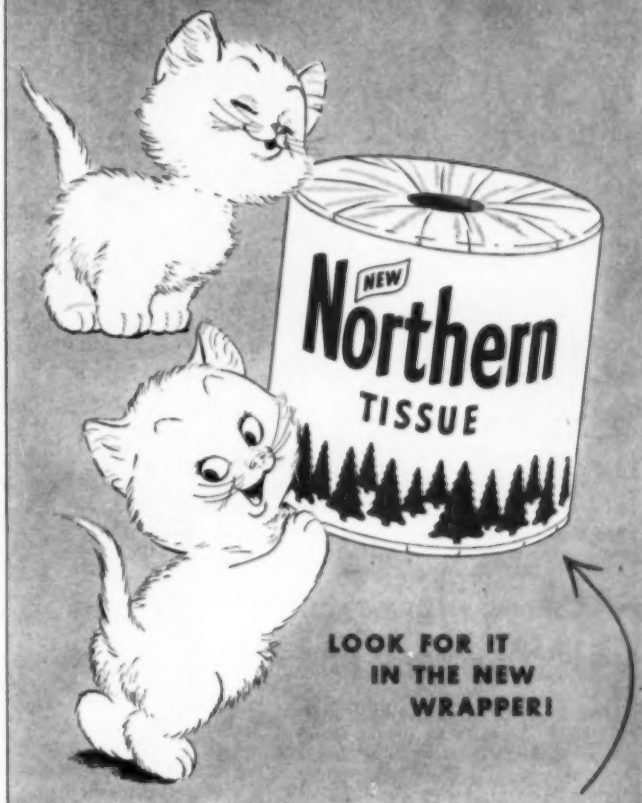
2. Apply to the skin. The warmth of your body brings out the fragrance of a perfume. A drop in the bend of your arm, the palm of your hand, or even at the bend in your knee works wonders. And behind the ear is still a good idea—unless you are going dancing. For dancing, try perfume around your skirt hem.

3. Use sachet to scent clothing. The alcohol content of perfume may be damaging to a delicate fabric or may even leave a stain. Keep sachets in closets, or drawers, or moisten small cotton balls with perfume or cologne, and tuck them in among lingerie, handkerchiefs, hats, or even inside a coat pocket.

4. Perfume won't camouflage. Perfume may have powers, but it won't cover up body odors! You're fooling no one but yourself if you think the liberal use of a strong perfume will make up for the fact that you skipped a bath.

One more hint—keep perfume in a cool, dark place. Sun or artificial light will weaken the extract. Because perfumes have an alcohol base, they're subject to rapid evaporation—another good reason for buying in a small portion. You can help prevent this evaporation by pouring a little of your perfume into a very small bottle, and then sealing up the original bottle with candle wax.

Completely new—softened twice!



LOOK FOR IT IN THE NEW WRAPPER!

Here's the news you've waited for—an extra soft toilet tissue you can afford. And, who but the makers of that old favorite, Northern Tissue, should bring it to you.

The NEW NORTHERN TISSUE actually goes through *two* extra refining steps. The result is a marvelously gentle, but surprisingly strong tissue.

Yes—you can buy the NEW NORTHERN TISSUE for the usual thrifty Northern price. Ask for it.

Softened twice—thrifty price

Copr. 1952—Northern Paper Mills

Mrs. Ralston's whole-wheat bread

Photographs, Pease, Stanley

The Ralston children, Ruby, Doris, and William, are ready and waiting. Baby Lois is still in the high-chair set

By Susan Menne

Homemade bread! Six rounded loaves rise in the corner of a cozy farm kitchen. Six crusty loaves come from the oven to cool on a scrubbed table top. And word goes round in Earlham, Iowa, that Mrs. Russell Ralston bakes whole-wheat bread that's fit for a king.

But Mrs. Ralston doesn't have royalty in mind as she works the fragrant dough around and around on her well-worn breadboard. She's baking a family favorite—in a family tradition—for a husband and four children who will forever associate the smell of baking bread with the happy home she is making for them.

While the art of baking homemade bread is not a lost one, it's almost wholly restricted these days to the country homemakers on the rural roads of America. Here you find women like Mrs. Ralston, who take the time once or twice each week to bake those incomparable loaves of bread that many of their city neighbors have never had the thrill of tasting.

Mrs. Ralston's [*Turn to page 92*

1 Mrs. Ralston adds last of the white flour to her dough before turning it out to knead. Yeast, milk, whole-wheat flour, sugar, salt, and lard are already mixed

2 Here Mrs. Ralston kneads the dough with the heel of her hand, works it around to distribute all the flour evenly

3 After kneading the dough until it squeaks, Mrs. Ralston puts it into a well-greased bowl, turns it a few times, and then covers the dough to rise

4 A second rising, then she shapes the dough into loaves. Now a third rising, and into the oven. Bread recipe is on page 92

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This $3.50 edition of Betty Crocker's

PICTURE COOK BOOK

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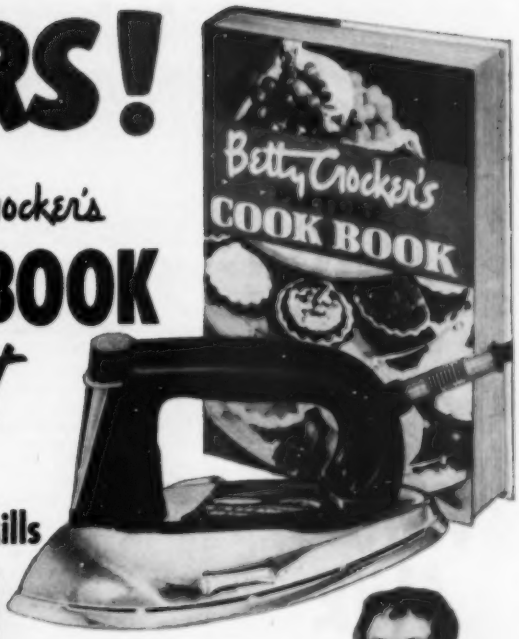
TRU-HEAT IRON



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It's the iron with the shape that makes the difference

Only lightweight iron (3 lbs. 2 oz.) with a permanent scratch-resistant soleplate. Never loses its easy glide!

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OLEOMARGARINE

is a skillful blend of pasteurized

Sweet Whole Milk

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vegetable oil

. . . and Salt; Sodium Sulfo-Acetate Derivatives of Monoglycerides; Lecithin; Sodium Benzoate, added as a preservative; 15000 U.S.P. Units Vitamin A added per lb.

Sweet Whole Milk	16%
Pure Vegetable Oil	80%
Other Ingredients (Listed on carton)	4%

Everything *tastes* better WITH DELRICH!

More than a delightful spread . . . Delrich is a delicious "flavor" shortening, too . . . rich and easy to blend . . . makes your favorite recipes taste even better! Nutritious Delrich is fully enriched with 15000 units of Vitamin A. Delrich is protected in foil-wrapped quarters, to bring it to you at its *very best*.

THE CUDAHY PACKING COMPANY • OMAHA, NEBR.

Mrs. Ralston's bread

[*From page 90*]

bread-baking days go back to the time when she demonstrated on a 4-H bread team at the state fair. Here she learned the science of baking. But the art is one she has cultivated with experience.

This is the recipe that Mrs. Ralston's family knows as her very own. This is the recipe for the whole-wheat bread the children eat every day after school—and the whole family enjoys at every meal, seven days a week. You say it must be good? It is!

Mrs. Ralston's
Whole-wheat Bread
Makes 6 loaves

Scald . . . . **6 cups milk**
Add . . . . . **1 cup minus 2 tablespoons sugar**
3 tablespoons salt
3/4 cup lard or **other shortening**
Cool to lukewarm (85°).
Dissolve . . **2 packages granular yeast** in
3/4 cup warm water, or
2 cakes compressed yeast in
3/4 cup lukewarm water
Measure **5 cups whole-wheat flour**
12 to **14 cups sifted white flour**
Add dissolved yeast to lukewarm milk mixture.
Add whole-wheat flour; stir.
Stir in about half of white flour. Then add about half of remaining white flour; stir.
Add enough of remaining flour to make a dough that won't stick to hands.
Turn dough onto floured pastry cloth.
Let rest for 5 minutes.
Knead dough for 10 minutes.
Grease bowl; put in dough, and grease dough.
Set in warm place.
Let rise until doubled in bulk, about 1 1/2 hours.
Punch down and let rise again until doubled in bulk, about 1 hour.
Make into 6 loaves to fit three 8 1/2x4 1/2 x2 1/2-inch pans, and three 9 1/2x5 1/4x2 3/4-inch pans.
Place dough in greased loaf pans.
Let rise until doubled in bulk, about 1 1/2 hours.
Bake at 400° for 10 minutes. Reduce oven temperature to 325° and bake for 40 minutes.

SUCCESSFUL FARMING

"Any more bright ideas? The mop is now stuck to the molasses!"

EYES TIRED?

Murine brings quick relief

If your eyes are tired from overwork or exposure to sun, wind and dust, just put two drops of Murine in each eye and — in a twinkling—they'll enjoy the cool delight of wide-awake refreshment. You can use Murine regularly. Its blend of seven tested ingredients cleanse and soothe your eyes as gently as a tear. Learn to keep Murine handy, because Murine makes your eyes feel *good!*

MURINE

for your eyes

May-basket make-it

A triple treat is in store for the lucky person who receives this clever basket

Who would ever guess that this handsome May basket started out as three paper cups, a package of paper doilies, one package of brightly colored crepe paper, a ribbon, and some wire? It's so easy to make and a beauty to display. Variations of this basket can be made with one, two, or even four paper cups. Another cup basket can be made to resemble a spring bonnet by adding a paper brim to a cup.

Fill handsome basket with candy and nuts

Fig. 1 Fig. 2 Fig. 3

1. Fasten three paper cups together with wire or staples to form a triangle. Use unwaxed cups so crepe paper and doilies will stick to the cup. Hot-drink cups work very well.

2. Wind a length of light wire with a ½-inch-wide strip of crepe paper cut across the fold. Shape wire to form a ring 3 inches in diameter to serve as the handle. Secure handle between cups with spool wire, or staple to inside of one of the cups.

3. Cut 2-inch-wide strips of crepe paper across fold and ruffle by hand or machine. Paste one ruffle around the three cups. Cut 2-inch-wide border from lace doilies and paste over ruffle. Alternate ruffles of crepe paper and lace to bottom of cup. Paste a border of lace inside each cup. Finish handle with a large ribbon bow.

HOME FREEZING?
save time, effort, space with VAPOCAN

EASY TO FILL!

You need no inner linings or setups with VAPOCAN! Simply stand carton upright and fill. Rigid sides and full-top opening avoid spilling and tipping. In the handy pint-and-a-half size, with squared body that saves freezer space.

EASY TO SEAL AND STORE!

You need no inner bags, outer wrappings or messy heat sealing. VAPOCAN'S new improved plastic lid presses on for a quick, sure seal. Use permanent lids again and again!. Lids are rimmed for firm stacking, can be crayon-marked for identification.

EASY TO EMPTY!

Simply remove lid and turn upside down! Easy to empty whether frozen or defrosted. Ideal for berries, cherries, vegetables, fruits, chopped meats, juices, even liquids. At most locker plants, appliance and department stores.

How to make it... Grade A all the way!

It's easy—when you use smooth, grainless panels of Masonite Tempered Presdwood for your new milk house. Makes strong long-lasting inside walls, outside walls and roof. Won't absorb odors. Hoses down quickly, water won't hurt it. And it's easy to paint. *Write for free plan!*

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More "grade A" milk with a "grade A" milk house built of tough, durable Masonite Tempered Presdwood. Here's how:

For outside walls, use Masonite ¼" Tempered Presdwood. Finish with sealer and two coats of exterior paint. With insulation in place, apply Masonite ⅛" Tempered Presdwood as interior walls. Add batten strips 2½" wide over each joint. Finish with two coats of aluminum paint.

Less chance of contamination with this dense, tough, all-wood hardboard. Won't crack, split or splinter. And it stands up under all kinds of weather. Ask your building materials dealer about the countless uses for the 23 types and thicknesses of Presdwood® products on your farm.

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☐ Complete information about farm uses of Masonite Presdwood.

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Address.....

Post Office.....*State*.....

Better Hardboards for Better Farming

Fertilizer in bulk

[*From page 35*]

and mixed at the plant. Based on the soil tests, custom-mixed fertilizer not only furnishes the elements needed by the soil, but gives them in a balanced formula.

Other states are using it, too. Likewise, bulk fertilizer is being used in other sections of the United States. In New York, for example, several companies are delivering fertilizer in bulk. The total tonnage spread in this way is small but growing fast. In Indiana, we find the same story.

Several companies in Pennsylvania also are handling bulk fertilizer. Fred G. Merkle, Agronomy Department, Pennsylvania State College, says the total for the state is less than 10 percent. However, even this is a considerable amount of the total tonnage.

What makes bulk delivery tick? On page 34 are listed some of the advantages of bulk fertilizer over sacked goods. These advantages are all designed to save time, money, and labor.

The big saving in cost gives bulk fertilizer dollars-and-cents appeal. It's hard to pin down the exact saving. However, according to Loryn McQuerter, manager of the M.F.A. Plant Foods Division, savings will run about $4 per ton on mixed fertilizer if the farmer picks up the fertilizer at the plant and does his own spreading. If he has it custom-spread, the hauling charges will eat up most of the saving in cost. However, the trouble of hauling and spreading the fertilizer is eliminated if it is custom-spread.

On high-analysis or straight-ingredient fertilizers, the saving will be even greater. Lyle Everest, manager of the Whiteside Service Company, says the cost on mixed goods runs from $3 to $6 per ton below that of sacked fertilizer. Many of the individual ingredients can be spread for nearly one-third less than the cost of a complete fertilizer (N-P-K) in bags.

The reason for the lower cost. Knocking out the labor involved in the sacking operation helps cut down on the cost. On top of this saving, the cost of the sack is also eliminated.

The fertilizer plant also gets away from several handlings, which helps cut costs. The pictures on pages 34 and 35 show how mixed fertilizer moves from the fertilizer plant to the farm without any handling by hand.

Eliminates storage on farm. No storage is necessary when bulk fertilizer is hauled and spread directly onto the field. Compare this with sacked fertilizer where the sacks must be moved from the delivery truck to a dry storage spot. Then, they have to be packed out to a truck or wagon and hauled to the field. Bulk handling not only eliminates several handling operations, but valuable storage space can be used for other purposes.

Spreading time cut. Cutting down on the time required to get the fertilizer on the land is another big advantage to the user. Spreading time is cut to nothing if the fertilizer is delivered and spread by a custom truck. If the fertilizer is hauled and spread by the user, the saving won't be quite as great. However, several han-

dlings will be eliminated by hauling the fertilizer directly from the plant to the field.

Leonard Haas, St. Louis County, Missouri, figures he can get by with two less men at spreading time by having it custom spread. A two-year user, Haas uses the bulk plan for both mixed goods and rock phosphate. He has used it on both pastureland and cultivated crops.

Easier to get when needed. Most fertilizer plants operate on a very small profit margin and depend on volume to come out on top. Bulk fertilizer adds emphasis to the old saying, "Don't put it off, put it on." In turn, year-round spreading of fertilizer helps level out the demand. By encouraging the off-season use of fertilizer, the total capacity of the plant can be stepped up. Sacked materials have a tendency to create a peak demand in the spring of the year.

"We're noticing a trend toward off-season orders," says Paul Voris of the M.F.A. plant in Springfield, Missouri. "It's a good thing for everyone concerned—the farmer has his fertilizer on the ground when he wants it, and it levels off our plant operation. The fertilizer industry just doesn't have the storage and transportation capacity to deliver a year's supply in a period of two to three months."

On many soils, fertilizer can be spread any time of the year when you can get in the field with a truck or wagon. The exceptions are highly erodible land or soil types which cannot hold the plant food until needed by the crop.

Here's what farmers say. Jack Eddy, Whiteside County, Illinois, has this to say in connection with the year-round spreading of fertilizer: "I don't hesitate to put fertilizer on land at any time of the year. However, there are some exceptions, such as steep hills, alkali soil, and peat soil."

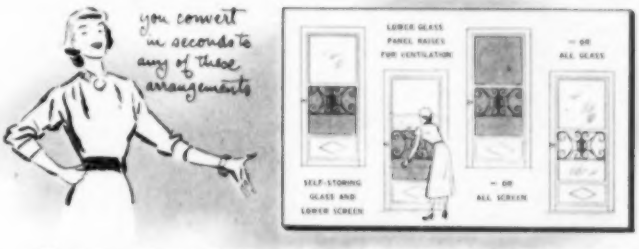
Eddy first tested the soil on his entire farm. He found the fertility level high on most of his farm—with the exception of a few spots. These spots were corrected. Since then, most of the fertilizer he uses is bulk-spread ahead of the clovers. This gives the small-grain nurse crop a boost and at the same time is good insurance of a clover stand. The only starter fertilizer he uses is for the corn on low land. The rest of his needs are furnished by bulk-spreading the individual element.

[*Turn to page 96*]

SUCCESSFUL FARMING

"If Red Riding Hood calls again tell her I won't be home until after breakfast."

THE BEAUTIFUL, STURDY **RUSCO**
COMBINATION SCREEN & STORM DOOR



It's a screen door and a storm door—*all in one!* Self-storing screen and glass inserts never need to be changed unless you choose. For filtered-screen ventilation, simply raise the lower glass like you would a window. Or, the easily removable glass and screen inserts may be quickly shifted to give you a full screen or full glass "picture window" door.

And it's as *practical* as it is beautiful! Built for long, trouble-free service. Lumite plastic screen is rotproof and rustproof—filters out dust and dirt. Before you buy *any* door, be sure to see Rusco! With Rusco you never *change*—you just *arrange*.

RUSCO *Self-Storing* **Combination Doors & Windows**

Proved by 16 years of satisfactory service and over 8,000,000 installations. When you buy Rusco, you buy products backed by a written guarantee. There is no substitute for experience and dependability.

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RUSCO Self-Storing COMBINATION WINDOWS
- give you Magicpanel ® year round rainproof, draft free, filtered-screen ventilation.
- a house that's warmer in winter, cooler in summer.
- eliminate cold zones.
- pay for themselves in 4 to 6 seasons in fuel savings!

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doesn't cost...it PAYS!

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Yes, an F & W water pump does pay for itself over and over again! Actually its benefits to your family in convenience, safety, comfort and health far *exceed* the measure of money. Yet, you'll be 'way ahead in dollars, *too*, with the important increases you can get in milk, meat, egg, and garden crop production! Be certain you get F & W, because it's noted for its efficiency and low operating cost. There's practically no upkeep, and thousands of F & W Water Systems are still pumping dependably after years of service. There's an F & W Pump to fit your needs *exactly*. Each is individually tested at the factory for pressure and capacity. You can *rely* on F & W to keep water flowing and profits growing!

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Both the Vaccine and the Serum-Virus have an unblemished record of DEPENDABLE immunity.

Gov't. developed, and supervised. Local dealers nearly everywhere. Let us send you free booklet.

COLORADO SERUM CO.
4950 York Street
DENVER, COLORADO

Fertilizer in bulk [*From page 95*]

Also in Whiteside County, Robert Esslinger is getting his fertilizer custom mixed to fit his soil needs. Like Eddy, he first has his soils tested on his entire farm. Then, the fertilizer is mixed at the plant to fill the soil needs. "Balance is important," says Esslinger. "There's no telling how high we can go in crop yields if we keep the fertilizer in balance."

He's another pusher for using fertilizer ahead of the clover crop. "I'm getting a better stand of clover using 1 bushel of clover seed on 12 acres than I used to using 1 bushel on 8 acres." He feels he is getting more for his fertilizer dollar by using it on wheat and clover rather than corn.

Used 100 tons last year. A big user of mixed fertilizer in the bulk is Walter Schmidt, St. Louis County, Missouri. Last year he used a total of 100 tons of fertilizer on corn, wheat, and soybeans. He owns his own truck and does his own spreading. According to Schmidt, the big advantage of bulk-spreading is that it encourages use of fertilizer in larger amounts. Before he started using bulk fertilizer, he rarely put on more than 100 to 125 pounds because of the added labor. This, he says, isn't enough for top yields.

For corn, Schmidt puts on between 500 and 600 pounds of 8-8-8 before plowing in April. With this, he turns under a green-manure crop of barley. In addition, he uses 100 to 125 pounds of 3-12-12 starter fertilizer. The result—his 125 acres of corn averaged 125 bushels per acre.

Schmidt is also a heavy user of fertilizer for wheat. The ground is plowed and disced once. Then, he bulk-spreads 350 pounds of 2-12-6 and discs it in. No starter fertilizer is used. He also plans to top-dress with about 100 pounds of ammonium nitrate around the middle of March.

On soybeans, Schmidt plows the ground first. Then, 400 pounds of mixed fertilizer is bulk-spread and worked into the ground. He tried putting the fertilizer on before and after plowing and had the best results putting it on after plowing.

Finds spreading accurate. Last fall, Glen Hancock, Greene County, Missouri, ordered 700 pounds per acre on some old rye which later was turned under and seeded to a pasture mixture of rye, Ladino clover, orchard grass, timothy, redtop, and alsike clover. "The trucker got a perfect job of distribution," says Hancock, "and there were no streaks. The 15-acre improved pasture was green all winter."

Hancock cites another experience to show how accurate the spreading job can be. "I ordered 14,000 pounds of 3-12-12 to be spread on a 28-acre field at the rate of 500 pounds per acre," says Hancock. "When the trucker finished, he had covered the entire 28 acres and had only 100 pounds left in the bottom of the truck. I'd call that pretty accurate."

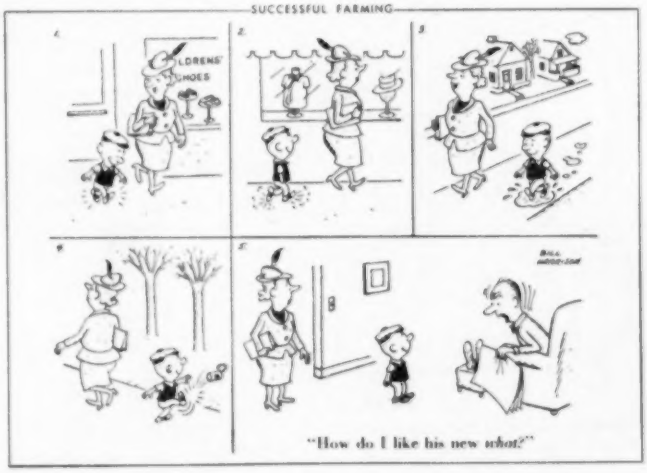
Has disadvantages, too. Bad weather causes most of the worry in bulk spreading. The fields have to be solid before you can cover them with a truck. Off-season orders, when the ground is frozen or dry, will help get around this problem. Except when soil conditions won't permit, the best place to store fertilizer is on the ground. This disadvantage can partly be overcome by doing your own spreading with a fertilizer broadcast drill.

Another disadvantage is that it is rather hard to go below 300 pounds per acre and still do a good job of spreading. This is especially true when large trucks are used. High winds also will carry some of the fertilizer away, resulting in an uneven distribution.

The miles a truck can travel from the plant are limited to 35 to 40. If the truck goes any greater distance, the added freight charge will offset one of the big advantages—lower cost per ton. Mixed fertilizer cannot be shipped in an open train car and held at a shipping point, as the fertilizer will cake due to the chemical reaction.

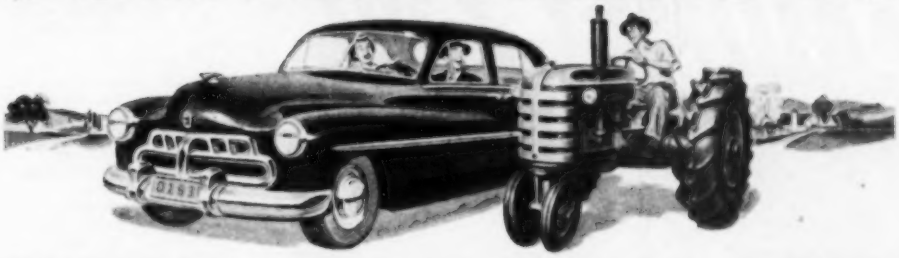
However, these few disadvantages are offset by the time- and laborsaving advantages plus the lower cost. We need to know more about how and when to spread in bulk. But, eventually, bulk fertilizer will find its place in a fertilizer program. There'll still be a need for sacked fertilizer in the future, but it will give ground in favor of an easier and cheaper way of spreading fertilizer. END

SUCCESSFUL FARMING



"How do I like his new *what?*"

YOUR CAR NEEDS IT...



YOUR TRACTOR, TOO

HEAVY DUTY

MOBILOIL more than meets all requirements for a heavy-duty motor oil set up by the American Petroleum Institute and today recommended by leading car and tractor manufacturers.

And you get famous Mobiloil *triple action* for top performance: *High V. I.* for minimum change in body over broad range of temperatures... *Anti-Acid Agents* to give greater protection against corrosion... *High Detergency* to help keep engines clean.

For all heavy-duty farm work, insist on heavy-duty Mobiloil. Call in your Mobilgas-Mobiloil man!

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IN TOWN— Look for the Sign of the Flying Red Horse

AT HOME— Look for the Familiar Red Truck

Good cooks choose

CALUMET 2 to 1

over any other baking powder!

Ham and Hot Biscuits are perfect for your "dinner of the week." So be certain that those biscuits come out Sunday Best, by baking 'em fluffy-white, baking 'em tender-light with Double-Acting, Double-DEPENDABLE CALUMET Baking Powder!

Famous Calumet Biscuits

2 cups sifted flour
2½ teaspoons Calumet Baking Powder
¾ teaspoon salt
4 to 6 tablespoons shortening*
⅔ to ¾ cup milk*

Note: Guard your baking skill all the way by following this recipe exactly . . . using CALUMET, "The Biscuit Bakers' Baking Powder." For CALUMET is Double-Acting, Double-DEPENDABLE! It lifts and lightens both in the mixing bowl *and* in the oven's heat. You can *count* on the luscious lightness of CALUMET biscuits, cakes, muffins and other baked treats. So no wonder more published recipes call for CALUMET than *any other* baking powder. No wonder twice as many women use CALUMET as any other brand!

Sift the flour once, measure . . . add CALUMET Baking Powder and salt, and sift again. Cut in shortening. Add milk and stir with fork until soft dough is formed (about 20 strokes). Turn out on lightly floured board and knead 20 turns. Pat or roll dough lightly ½ inch thick. Cut with floured 2-inch biscuit cutter. Bake on ungreased baking sheet in hot oven (450°F.) 12 to 15 minutes. Makes 14 biscuits.

*Range in shortening allows for variation in richness of biscuits. Amount of milk varies with the type of flour used. Southern soft wheat flour requires less milk than regular all-purpose flour.

HAM 'N BISCUIT "PENNYSAVERS"

Ham Biscuit Ring. Bake biscuits on ungreased baking sheet with sides touching to form an 8-inch ring. Bake as directed. Place on serving plate and fill center with creamed ham.

Creamed Ham Shortcakes. Split hot biscuits. Serve creamed ham between halves and on top.

Southern Ham Biscuits. Prepare Famous CALUMET Biscuits, adding ½ to ¾ cup ground cooked ham to flour mixture before adding milk.

A Product of General Foods

CALUMET BAKING POWDER
DOUBLE-ACTING

Pies

[*From page 40*]

Quick Lemon Chiffon Pie
Makes an 8-inch pie

Add . . . . **1½ cups milk** gradually to
1 package vanilla pudding mix in saucepan
Stir over low heat until thickened.
Cool, stirring occasionally.
Add . . . . . **3 tablespoons lemon juice**
1 teaspoon grated lemon rind
Add . . . . . **3 tablespoons sugar** gradually to
2 egg whites, beaten until foamy
Beat whites until stiff.
Beat cooked mixture until smooth.
Stir in ¼ of egg whites.
Fold in remaining egg whites.
Pour into cooled, **baked 8-inch pastry shell**
Chill until firm.

Fluffy Pineapple Pie
Makes a 10-inch pie

Soften . . . . **1 tablespoon unflavored gelatine** in
¼ cup cold water
Heat together in top of double boiler
1 cup pineapple syrup
½ cup water
Combine **3 slightly beaten egg yolks**
2 tablespoons lemon juice
¼ cup sugar
Pour a little of hot mixture into yolk mixture, stirring constantly. Then pour yolks into hot mixture.
Cook over hot water until it thickens.
Remove from heat; stir in gelatine until dissolved.
Cool until partially set.
Add . . . . . **¼ cup sugar** gradually to
3 egg whites, beaten foamy
Beat whites until stiff.
Beat gelatine mixture until smooth.
Stir in ¼ of egg whites.
Fold in remaining egg whites.
Pour into cooled, **baked 10-inch pastry shell**
Chill until firm. Garnish with
pineapple slices
whole maraschino cherries.

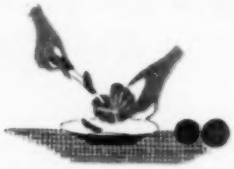
Grape Chiffon Pie
Makes a 10-inch pie

Soften . . . . **1 tablespoon unflavored gelatine** in
¼ cup cold water
Combine in top of double boiler:
3 slightly beaten egg yolks
1 cup grape juice
½ cup sugar
½ teaspoon salt
2 tablespoons lemon juice
Cook over hot water, stirring constantly, till thickened.
Remove from heat; stir in gelatine until dissolved.
Cool until partially set; beat smooth.
Fold in . . . **½ cup heavy cream,** whipped
Beat until stiff
3 egg whites
¼ teaspoon cream of tartar
Beat . . . . . **6 tablespoons sugar** into egg whites
Fold whites into cooked mixture.
Pour into cooled, **baked 10-inch pastry shell.** Chill.

—*Bernice Chrisman, Nebraska.* END

Ways with citrus fruits

With juicy oranges and grapefruits coming home in your market basket these days, you'll want to serve them at their best. Even if it's only a grapefruit for Sunday breakfast, there's a special way to prepare it for easy eating.



For orange sections. Use a sharp knife to peel off all outer skin and membrane right down to the juicy meat. Then cut on either side of the dividing membrane and carefully remove meat, section by section

For grapefruit halves. First, cut the fruit in halves. Remove the core. Then cut around each individual section, loosening the section from its membrane. *Do not* cut all around the edge of fruit, or you'll release bitter juice from the membrane

For orange cups. Orange cups with fluted edges are easily and quickly made. Divide the fruit in halves with zigzag cuts to the center. Separate the halves, and remove the fruit from the orange-cup shells

For grapefruit sections. Cut the peel in strips from top to bottom, cutting deep enough to remove white membrane. Then cut a thin slice from top and bottom. Go over the fruit again, removing any white membrane. Cut along the side of each dividing membrane from outside to middle of core. Remove fruit, section by section, over bowl, to retain nutritious fruit juice

Try the recipes for citrus fruits, page 118

Pull your food prices down

WITH A

DE LAVAL SPEEDWAY FOOD FREEZER

Eliminate the *extra* costs that you pay for food when you sell it from the farm at wholesale and buy it back at retail.

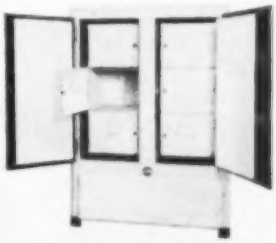
MODEL F-160
Beautifully compact 16 cu. ft. chest-type freezer. Storage capacity for approximately 600 lbs. of assorted food.

The new model De Laval Speedway Food Freezers offer you top benefits in food economy . . . better meals . . . dependability and convenience.

Today nobody doubts the many advantages of freezing and storing fresh food right in your own home . . . its value has been demonstrated over and over.

But be sure to get the *right* food freezer . . . the De Laval Speedway Food Freezer designed especially for the farm family. See your De Laval Dealer—or mail coupon today.

MODEL F-240
Handsome 24 cu. ft. upright-type freezer. Has three double compartments each with a capacity of approximately 280 lbs. of frozen food. Total storage capacity 840 lbs. Inner doors to each compartment prevent cold loss.



De Laval

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POUGHKEEPSIE, NEW YORK
Please send new printed matter on:
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☐ F-240 Speedway Food Freezer
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Town.....R.F.D.....State.....

Charles Wilhelm *is probably one of the country's busiest young farmers. He and his landlord, Alfred Kemp, are in partnership. Charles operates a 215-acre farm, milks a herd of 24 Guernseys, and keeps a laying flock of 800 hens. He'll raise 24 litters of spring pigs this year, probably more this fall, and when this picture was taken, he had 91 thrifty pigs from 9 sows. In his spare time he's learning to be a better farmer at an agricultural class for former GI's.*

Charles Wilhelm says—

Our Feed Costs Ran Only $10.86 a 100 lbs. of Pork —with MoorMan's

"Your good corn, too, will go a lot farther and produce more pork when fed with MoorMan's concentrates," says Charles D. Wilhelm, young Marshall County, Ind., farmer. "I know, because last year I kept accurate records of every pound of feed for 165 spring pigs. And my feed costs added up to only $10.86 for each 100 pounds of pork.

"We started creep-feeding the pigs when they were a month old on MoorMan's Pig Mintrate and ground yellow corn. When they weighed 90 pounds, we switched to Hog Mintrate 45. MoorMan's Special Hog Mineral Blocks were kept before them all the time.

"My exact feed bill was:

1,681 bu. corn @ $1.65, or $2,773.65; MoorMan's Pig Mintrate, Hog Mintrate 45, and Hog Minerals, $668.08. That adds up to $3,441.73. The hogs averaged 192 pounds when sold at 5½ months. And that's 31,680 pounds of hogs for $3,441.73 —or $10.86 a hundred.

"My fall pigs cost about $1.00 a hundred less. They were started in a creep at two weeks, kept on Pig Mintrate until they weighed 100 pounds, then finished on Hog Mintrate 45. The 65 hogs in the first two loads trucked to Indianapolis at 5½ months averaged 217½ pounds. I got a 25-cent premium over the day's market top, and learned later they dressed 72.98%."

You, too, can produce a 200 pound hog on approximately 10 bushels of corn, if you supplement your home-grown grain and pasture with MoorMan's Mintrates. You'll find this protein-vitamin-mineral combination in each bag of MoorMan's Pig Mintrate or Hog Mintrate 45—scientifically blended to make your home-grown feeds do more than they have ever done before.

Remember, when you feed MoorMan's, you buy no fiber, no filler, no grain, or grain by-products—no feed ingredients you can raise or process on your farm. That's why thousands of satisfied MoorMan users now raise hogs at less feed costs than ever before. *Ask your MoorMan Man about MoorMan's world-famous concentrates, or write Moorman Mfg. Co., Dept. R2-5, Quincy, Ill.*

MoorMan's

(Since 1885)

MAKERS OF PROTEIN AND MINERAL CONCENTRATES FARMERS NEED, BUT CANNOT RAISE OR PROCESS ON THE FARM

YOUTH GOES ON RECORD

Highway accidents

Panel, left to right: Kempton Huehn, Peggy McNertney, Bonnie Larsen, Audrey Kadolph, Bob Bateson, Gary Soli, Mary Ellen Krause. Not pictured, Mary Lou Johnson, Thelma Vasey. Peg tests her reaction time on machine loaned by the Highway Safety Department. Other devices test depth perception, field of vision, muscle co-ordination

By Betty Camp

A car in the hands of a teen-ager is roughly twice as dangerous as a car driven by an adult. Study after disheartening study has borne this out. One recent report made by the Inter-Industry Highway Safety Committee reveals that 16-year-old drivers are mixed up in *nine* times as many accidents as drivers from 45 to 50, although both groups hold a proportionately small percentage of driving licenses.

It needn't be this way. Granted, driving ability depends on maturity and judgment. But maturity and judgment *can be taught to youthful drivers*. Ask the boys and girls themselves. In a recent discussion, students of the driver-training class at the Consolidated High School in Eldora, Iowa, brought out some sound ideas on how teen-age accidents can be cut down.

What do they think are the big causes of teen-age accidents?

Gary: I think kids get into accidents because they're not experienced. They don't know how to judge distances or how long it takes to stop.

Kempton: At first it's hard to know how far to turn when you go around corners, too, and how to keep the car right with the center line on the road. You've got to learn that.

Peggy: A lot of accidents happen because fellows try to show off. The first time they drive alone, or when they get their dad's car, they think they're big shots and want to show what they can do with a car. They like to turn corners when they're going fast to make the wheels squeal and attract attention.

Thelma: I'll bet boys are more careful when they drive alone. When you have a date or when there's a bunch of kids in the car you don't pay enough attention to driving. My folks always tell my date to drive carefully.

Bob: That's true. Girls *are* distracting!

Kempton: Speeding is bad, too. Sometimes if they have a new car they feel it is better than someone else's or it will go faster, and they want to test it and watch that speedometer go up.

Mary Ellen: Kids are criticized too much for their driving. When one of us has an accident, newspapers and magazines build it up to the sky; the same thing could happen to an older person and no one would pay any attention to it.

Bob: You're always reading about "chicken" and other thrill games kids play on the highways. Some places it's probably true. They used to do it in H——— (neighboring town) but they don't around here. That's dynamite! You're asking for a crack-up.

Bonnie: I think one of a *girl's* biggest faults is lack of confidence when she's learning to drive. A girl isn't as used to machinery.

Gary: Girls are always scared of doing something wrong.

Bonnie: Listen, boys may be the *best* drivers, but they also have the most highway *accidents*.

[*Turn to page 102*

PROTECT MILK QUALITY
WITH *Perfection*
DUBL-CHEM-FACED
the famous "Tripl-Filtring"
MILK FILTER DISCS

MAINTAIN GOOD dairy "HOUSEKEEPING"
with DU PONT
the famous, Sanitary, Cellulose SPONGE
Size 6A — worth 35¢

You get these
2 FAMOUS QUALITY PRODUCTS for the price of 1
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DUBL-CHEM-FACED MILK FILTER DISCS
at the same low price* regularly charged for 300 filter discs alone!

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Protect Milk Quality Three Ways!
SAVE MONEY at every milking
Perfection DUBL-CHEM-FACED filter discs have "Tripl-Filtring" action:
1—The top surface filters;
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Enter This Easy "Room-For-Improvement" Contest

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IMAGINE! You can actually win big cash prizes and get free architect-drawn plans for modernizing your home just for telling us why and how you'd like to remodel your home.

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THEN BY ALL MEANS ENTER this exciting Room-for-Improvement Contest. Mail the coupon below. You'll be rushed your official entry blank and a brand-new folder of ideas to help you win.

WHEN YOU GET YOUR ENTRY BLANK fill it out, completing two simple statements telling us (1) *the kind of remodeling you'd like to do—and why;* (2) *why you think Douglas fir plywood is the best material to use for your remodeling.* Then, on the entry blank draw a rough floor plan of your home as it is now. Next, show the changes or additions you'd like to make.

SOUNDS EASY, DOESN'T IT? IT IS! You don't have to be an artist. Anyone can win, based upon the two simple statements. Your improvements can be any size, any kind. And it's fun to plan improvements for your own home. So start thinking about how you'd like to remodel your home. Imagine it exactly the way you want it. You'll find you're a better planner than you thought possible. Mail coupon today for your easy-to-fill-out official entry blank and contest rules.

SPECIAL DIVISION FOR FARM HOMES

CHECK THESE 46 BIG PRIZES!

	4 FIRST PRIZES *	4 SECOND PRIZES *
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*ALL first and second prize winners will be given complete plans for remodeling their homes. Plans will be drawn by leading architects, based on ideas expressed in winning entries.

10 SPECIAL PRIZES ..... **$100.00 each**
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Contest is sponsored by Douglas Fir Plywood Association, the trade association of West Coast plywood manufacturers. Anyone living in continental United States is eligible to enter this contest except employees of Douglas Fir Plywood Association, its advertising agencies and their families.

Douglas Fir Plywood

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Dept. 225, Douglas Fir Plywood Association, Box 1334, Tacoma 1, Wash.
* Please send free official Room-for-Improvement entry blank which contains official rules. Also please send free folder "Choose Plywood When You Build or Remodel."

Name .....
Street or R.F.D. .....
City ..... Zone ..... State .....

Highway accidents

[*From page 101*]

What did the group think of young drivers, entrusted with cars, who show a total disregard for the safety of others? What should be done with them?

Bob: Take their licenses away for a year.

Gary: Don't let them ride in *any* car even with their folks. That will teach 'em.

Kempton: Someone like that will get his punishment later when he gets seriously hurt. The only bad thing would be if he hurt someone else.

The rest of the group agreed you couldn't wait until disaster struck for a careless driver to learn his lesson. According to insurance companies, drivers under 25 are twice the accident risk that older drivers are, and insurance premiums are correspondingly higher for young drivers. At what age did these boys and girls honestly feel a driver's license should be issued?

Bob: It depends on the person and the training he's had. I don't think 16 is too young if you've had driver training in school. After all, driving is a skill. You have to learn it, just like algebra. If every high school had driver training, kids wouldn't have as many accidents. (This was proved by a Cleveland, Ohio, study. Students who had taken driver-training courses in high school had only half as many accidents as those who failed to take the course).

Bonnie: It doesn't do much good just to read the rules in class, though. You have to practice in a car. (Students are required to have five hours of behind-the-wheel instruction in a dual-control car under trained supervision before they are tested for a driving license.)

Audrey: They say a girl can't learn mechanics, but we know as much as the fellows about what makes a car tick and what to do when something goes wrong. Driver training teaches you how to change tires and handle emergencies.

Mary Lou: Boys who take driver training don't show off.

Bob: Maybe if more schools had it, insurance companies would change their minds about kids' not being safe risks. It's surely rough on the rest of us, who try to drive carefully.

Who would they rather have teach them to drive, their parents or a trained instructor?

Peggy: An instructor! They know the right way to drive and don't make you so nervous. When you learn in a dual-control car, you have more confidence and don't get rattled. If your folks teach you, you never *do* get to the place where they think you can drive. Any little mistake, and they pounce on you.

Mary Ellen: I don't think some parents are such hot drivers themselves. My girl friend's mother takes her temper out on the car. She gets behind the wheel and roars the motor and she chokes the car to death when she's trying to start.

Bob: The whole thing is, instructors take courses in teaching driver training. They're specialized and know what to stress when you're learning, like signaling correctly, a relaxed outlook, looking ahead to size up what's coming.

Besides instituting driver-training courses in more high schools, what else

did they think could be done to cut down teen-age accidents?

Gary: I'd like to see more real-life movies showing how accidents can be avoided and what happened. If they have a good plot, safety movies can be interesting and they really get the point across.

Bonnie: The police and highway patrolmen should crack down more on reckless drivers. I think they should be stiffer with licenses, too. Some states don't even require tests to get a license. All you have to do is drive around the block. (Four states require *no* license at *any* age.)

Thelma: If they had better roads, it surely would help.

Gary: Parents could do a lot, by driving correctly themselves. If your folks are reckless, you're going to be, too.

Mary Lou: Some parents are *too* careful. They're afraid to drive over 20 miles an hour and accidents happen then, too.

Just how fast can you drive on the highway and still be safe?

Bob: That depends on the condition your car is in and the traffic, and how safe the roads are and the weather and any number of other things. Also whether you're driving in the daytime or at night.

Audrey: It depends on how fast a reaction you have, too, whether or not you can stop quickly.

Did they feel they have an inherent right to drive?

Kempton: I'd say it's more of a privilege. If you're going to endanger someone's life, your license should be taken away from you.

Only by teaching young drivers safety habits, a responsible attitude, and correct driving techniques can the present teen-age death and accident rate be cut. Safe driving is a skill; it must be learned by thorough and organized instruction plus actual behind-the-wheel experience under expert supervision. Establishing sound educational programs, preferably in schools, is a basic first step.

A close second step is sounder driving practices by parents themselves, for young drivers automatically follow examples set by their parents. Young drivers can be good drivers *if parents show them how.* **END**

Each month Successful Farming will report an actual panel discussion of young people on the knotty questions and problems which confront today's farm youth. If you would like us to lead a discussion at a meeting of your youth group, write and tell us your question. We can't work in all your ideas, but we'll get around to many of them.—Editors

SUCCESSFUL FARMING

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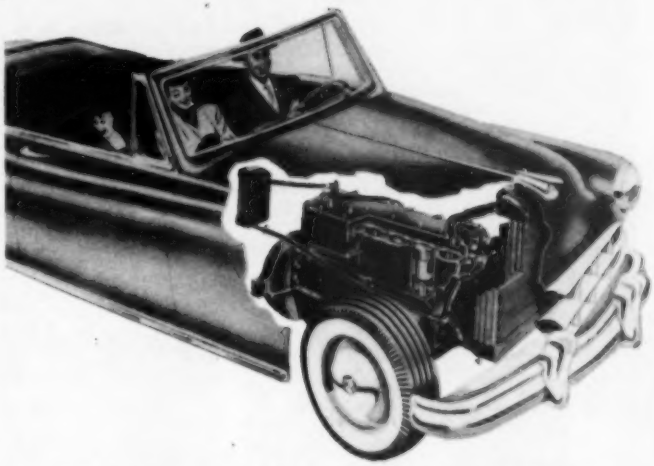
It's time to DRAIN OUT and CLEAN OUT your radiator



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BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

From attic to growing room

By Ray T. Nicholas

As youngsters grow up, their housing needs grow with them. They need a place where they can entertain their friends and study, where they can house their growing collections of model airplanes, dolls, and butterflies.

Why not give them a room of their own with plenty of space to carry on these activities? Your unfinished attic may be just the place you're looking for—unpromising as it may seem now. The irregular shape of many attics makes them perfect for division into living-sleeping combinations.

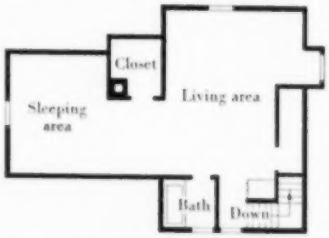
Space under the sloping eaves provides a ready-made niche for beds and storage closets or cupboards. A small dormer window can be utilized easily for a dressing table made of a shelf hung between the two walls.

A variety of materials can be used to make your attic into attractive extra rooms. The warm glow of wood paneling adds light to rooms which have a tendency to be dark. If you want to paint the room, use wallboard or hardboard for walls, taping the seams. This way, no plastering is necessary.

If you have such an attic, these pictures will help you give your youngsters more growing room.

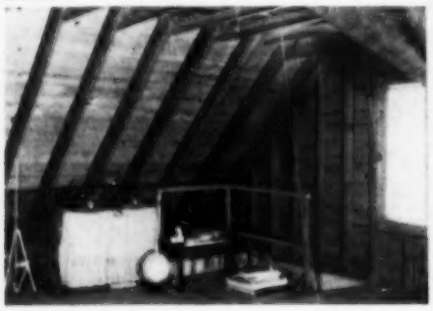
Before

Sleeping area in attic, at right, was separated from living area by a spacious wardrobe closet built around the exposed chimney, shown above. All walls and ceiling were insulated



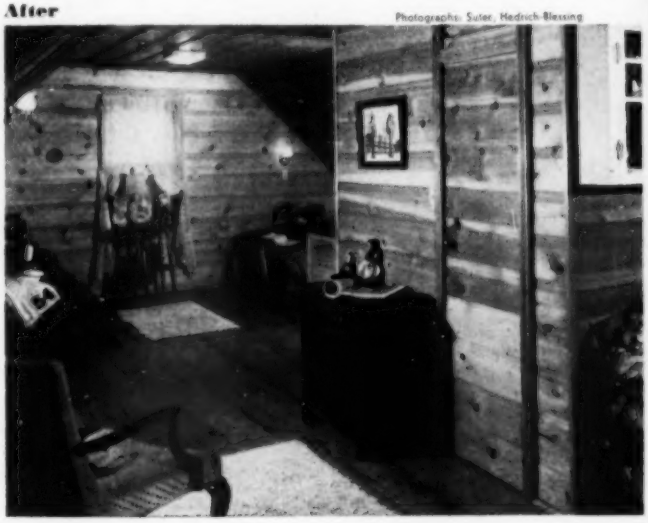
Enclosure of open stair well (below) made room for closet under eaves, desk, built-in bookcases at right. Bathroom, far right, was built into opposite corner (see floor plan)

Before



After

Photographs: Suter, Hedrich-Blessing



After

Why a farmer can sleep on a night like this

He knows his crops and livestock are safe and dry — inside sturdy, lightning-proof, weathertight steel buildings.

Steel is the modern material for farm buildings of all kinds. It is light in weight, yet strong and durable. It won't warp or shrink or split. It is easy to clean, easy to paint. Most important of all, it gives you *lasting protection against weather, rats and fire.*

You can buy steel buildings prefabricated for easy assembly. Unskilled labor can put them together with simple tools. And no matter what type of structure you need, you'll find the design that's most practical for that use. With steel, agricultural engineers have taken the guesswork out of farm-building design . . . have proved various shapes and types in actual farm service.

Furthermore, steel buildings can be changed as your requirements change. They can be moved without waste or great expense. Sizes and shapes can be altered too.

Many manufacturers use Armco ZINCGRIP in the fabrication of steel buildings. This steel has a special zinc coating that doesn't flake or peel off when the panels are formed. If the buildings are to be painted, Armco ZINCGRIP-PAINTGRIP is used because it is Bonderized at the mill to take and hold paint longer.

Now is the time to look into the latest steel building designs for dairy housing, implement storage, crop storage, and other farm uses. For the names of manufacturers of steel farm buildings, just write us at the address below.

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- ☐ Rat-proof
- ☐ Termite-proof
- ☐ Will not rot
- ☐ Will not warp
- ☐ Will not crack

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SAVES TIME! SAVES WORK! SAVES MANPOWER!

ELIMINATES BACK-BREAKING LABOR!

HERE'S PROOF THAT COUNTS

Mr. H. M. Gumper, owner of Clearview Farms, Jackson, Michigan, says: "We are very happy to advise you that your PICK Power Boxes have proven very satisfactory. **We put 80 tons of hay in the silos in one day.** We completed the filling of our silos in record time at a very large saving in manpower and valuable time."

SAVE UP TO ONE HOUR ON EACH UNLOADING

You'll slash crop hauling and unloading costs with a PICK Power Box. The job is done faster and easier . . . requires fewer wagons and fewer men. Unloads "a TON-A-MINUTE." It helps beat the threat of bad weather — gets the crop out of the field when it's at its prime. Saves time for other jobs during the rush season.

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PICK Power Boxes are made of highest grade materials — built to take it! All parts are machined and interchangeable. The 8' x 14' or 6' x 12' sizes are available with any combination of sides up to 8' high — also with screen and canvas supports. Available for use with or without power takeoff.

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Weed killers

[*From page 45*]

three days later, with two leaves expanded, corn seems to enter *another* critical period. The same dose given then has resulted in no development of the main stalks beyond a sort of club 12" to 18" high. The scant half-crop of corn the plots produced was borne on suckers.

These examples show how critical a few days can be in timing 2,4-D applications. If you want to use a pre-emergence spray, the safest time to apply 2,4-D to corn is just before or just at emergence—*but don't apply it even one day later* than that!

When pre-emergence applications of 2,4-D injure corn, it usually is because the chemical has been carried—by rain—to the seed level.

The alkyl ester types of 2,4-D are safer for pre-emergence spraying because they are not carried down into the soil as easily as the amines. The new long-chain esters, which were designed to be less dangerous to plants near the sprayed area, are very active in the soil and should not be used pre-emergence. Your dealer can help you be sure you get an alkyl ester for this purpose.

Give corn a post-emergence treatment when it is between 4 and 10 inches tall. One-fourth to ½ pound of actual 2,4-D is safest, using an ester form at the lower rate and an amine at the ½-pound rate.

The man who waits to see how weedy his corn is before calling on the custom sprayer and has it sprayed at 12 to 24 inches in height is courting trouble—though some injury may occur at any time.

The most exciting new herbicide in 1951 was CMU. Wisely, it will not be put on the market in 1952, pending further trials. At rates ranging from 20 to 80 pounds per acre, CMU prevented all growth for the season.

Strange to say, CMU has also shown promise at ¼ pound to 2 pounds per acre as a pre-emergence treatment on large-seeded crops like corn and soybeans.

Remember when IPC was announced as "the 2,4-D for grasses" a few years ago? In the Cornbelt, it never lived up to the record of performance it made in England—where it was discovered—or in Oregon and northern California, where it still is used commercially. We got a clue last summer as to why—our higher soil temperatures. IPC apparently pretty much disappears before it can do much weed killing in Cornbelt soils.

However, the chemists have produced chloro-IPC, which is IPC with chlorine. This is not so sensitive to temperatures as its parent, and gave a series of favorable results and some unfavorable ones. Wait and see!

Many other chemicals were tried for the second or third years last year. Some, we have about given up. Others, we want to try further. MCP, always the leading hormone weed killer in England and Europe, is beginning to appear in American recommendations, especially for use on flax. There are indications that it is slightly less dangerous to legumes in small grain than is 2,4-D, but the difference is certainly small. The "canopy" cover of crop and weeds must give *most* of the protection to clover and alfalfa from either 2,4-D or MCP.

Endothal, tried in various compounds

for the second year, is still promising, but permits no clear-cut recommendations. The same goes for CRAG Herbicide 1 and dichloral urea. Both of these produced some excellent local successes; CRAG with strawberries and nurseries, dichloral urea on crabgrass in lawns and grasses in beets.

TCA, no longer new, is recommended at 5 to 8 pounds (actual TCA acid) per acre, pre-emergence, on sugar beets to take out annual grasses (except wild oats). Weed workers are still trying to find sure, economical ways of using it on Johnson grass and quackgrass. The best treatment has been to plow the quackgrass, work down as for seeding, and apply the chemical at once to the soil. With this method we have had near-total eradication from approximately 50 pounds per acre of the commercial sodium salt, as sold, applied in August. Too much or too little rainfall, however, can play tricks with TCA, taking it too far or not far enough into the soil, and thus making it ineffective.

What about these "low-volatile" or "long chain" esters of 2,4-D? They were developed to answer the need for a 2,4-D with less tendency to evaporate. More than once, nearby fields of soybeans, legumes, and vegetable crops have been damaged by the vapors from a recently sprayed field or fence row. There still is danger of drift, however, when you apply the spray.

Another important reason for using the low-volatile esters is that they are much the most active 2,4-D and 2,4,5-T compounds yet prepared. Use them where greatest possible activity is needed, such as in brush control. Your dealer can obtain low-volatile ester 2,4-D for you.

Spraying of trees, brush, and stumps around the base during the winter months with kerosene or fuel-oil solutions of long-chain esters of 2,4-D, 2,4,5-T, or mixtures of both, has been very effective.

The key to success is liberal application to the lower part of the trunk or stems, just above the ground line. Enough should be applied so that it runs down to the soil around the upper part of the roots. A solution of 10 parts of actual acid per 100 gallons of fuel oil or kerosene is satisfactory. It may be applied any time from January to April. This saves considerable (not *all*) of the hazard to adjacent plants, and gets the job done at a less busy time.

> **The flowers appear on the earth: The time of the singing of birds is come, and the voice of the turtle is heard in our land.**
>
> —*Song of Solomon 2:12*

A great deal of effort has gone into studies of chemical weed control in soybeans. The practical adoption of any chemical method is held back by the fact that, given a fair chance, few crops compete more effectively with weeds than soybeans.

However, the new giant foxtail in Illinois and many long-established weeds everywhere are posing plenty of problems. A pre-emergence application of 6 to 8 pounds of DNOSBP, the alkanolamine salt, per acre, has been very effective when applied a day or two before the beans come through. It has caused some

[*Turn to page 108*

USE A
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SURE-STAND SEEDER AND PULVERIZER

FIELD tests prove that seeding grass within the top half inch of a pulverized seedbed gets a better stand and saves seed.

Ordinary seeding methods scatter seed in a rough seedbed so that some seeds are buried too deep and others fall in barren air pockets. The result is poor germination and wasted seed.

The Brillion Sure-Stand Seeder, Pulverizer, and Packer, pulverizes lumps ahead of the seeding mechanism, puts the right amount of seed in the seedbed, covers them to one-half inch depth, and gently firms the soil around each seed. All of this is done in one operation. You get a sure stand and you need only *half* the usual amount of seed. Seedlings are in a better seedbed for quick growth and a sturdy root system.

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Moreover, it is a longer lasting mower. Its alignment stays true. There is less wear and tear on operating parts.

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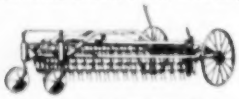

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MAIL THIS COUPON

Weed killers

[*From page 107*]

injury to the beans, at times, but has not, in our experiments, cut the final yield.

In rowed soybeans the cost could be reduced by spraying a 20-inch strip just over the row—the rate above was used on beans drilled solid.

Since the announcement last year that animal poisoning *could* result from 2,4-D effects on certain plants in pastures, enough scare stories have been printed in farm papers and elsewhere so that many farmers are afraid to use 2,4-D and 2,4,5-T around stock. This is unfortunate. Literally millions of acres have been sprayed while stock were in them, without injury.

The writer has collected reports of suspected 2,4-D poisoning from all over the United States for the past two years. As a matter of perspective, over 14,000 cows a year are reported to be killed in New York State alone by eating wire, nails, and similar "hardware." But vigorous searching has turned up in the neighborhood of 100 cases of *suspected* 2,4-D poisoning altogether.

There are two definitely known possible sources of poisoning of stock through the use of 2,4-D. First, many plants increase in sugar content sharply for a day or two after being sprayed with hormone weed killers. This, apparently, makes them more palatable, and almost everyone working with these hormones has noted stock at times eating sprayed plants they hadn't eaten before. If these plants are poisonous, clearly we might have poisoning.

This, however, is basically a hazard due to poisonous plants in the pasture, and not to hormone spraying as such.

East of the Mississippi, wild cherry pops up in enough accounts of suspected poisoning to justify extreme caution wherever it is present. Unfortunately, most accounts of the poisonous properties of wild cherry refer to "wilted" wild cherry as poisonous. Let's forget the "wilted"! Wild cherry can be poisonous, green or wilted.

The second source of poisoning from 2,4-D also occurs without 2,4-D. Some plants at times accumulate large amounts of nitrates—equal to 2 to 8 percent of potassium nitrate in the dry weight of the plant. If ruminants eat this kind of forage, the nitrates are changed to nitrites in the rumen. These then change the blood so that it cannot carry oxygen from the lungs to the tissues. The animals, therefore, die for lack of air. Nitrate poisoning is readily treated by a competent veterinarian—if the animals are alive when he reaches them.

> **It does a man no good to sit up and take notice if he keeps on sitting.** —*Anonymous*

It has been definitely shown that sugar beets, lamb's-quarters, pigweed, and several other plants, sprayed with doses of 2,4-D which do not kill, may accumulate nitrate in fatal amounts. Stock have died after eating sprayed sugar beets and weeds, with symptoms of nitrate poisoning. The number of stock-poisoning cases from this source does not so far exceed a dozen in the entire United States. **END**

For Young or Old.. Work or Play, it's

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Today, as never before, you need to make every work wear dollar get you the most of the best in comfort, appearance and *WEAR*. That's exactly what you do when you buy *Oshkosh B'Gosh* for every work wear need. *Oshkosh B'Gosh* work garments don't merely *wear* longer. They also keep their like-new comfort and good looks longer because they're tailored to fit and *SANFORIZED* so they won't shrink out of fit. So ask your nearby Oshkosh B'Gosh dealer to show you the wide variety of Oshkosh B'Gosh styles he carries to serve you at work or play.

A Matched suits with dress-wear styling—tailored to fit over original Oshkosh B'Gosh graduated patterns and Sanforized to stay that way.

B The original tailored-to-fit overall—made of genuine Oshkosh Special Sta-Blu denim that's guaranteed to wear longer, stay blue longer and not shrink out of fit.

C Real Western style "BRONKETTES", trimly tailored for girls and misses with all the features that have made "BRONKS" so popular for men and boys. Zipper closure—Sanforized Western blue denim—won't shrink out of fit.

D The original Oshkosh B'Gosh "BRONKS"—real cowboy style and made for service of *Super-tough 11 oz. denim*. And be sure to buy BRONKS that fit you just *right* because they *don't shrink* . . . they're SANFORIZED!

E For rough-and-tumble 2 to 6 year olds, it's HOBOS of tough 8½ oz. Tomahawk Twill that kiddies won't wear out. Won't fade or shrink—need no ironing.

FREE OSHKOSH B'GOSH BANDANNA

Bright, colorful, jumbo-size bandanna is yours just for mailing us the coupon below, together with size ticket from any Oshkosh B'Gosh garment. Only one to a person. Offer expires May 15. Rush in your coupon and size ticket without delay:

OSHKOSH B'GOSH, INC. OSHKOSH, WISC.

OSHKOSH B'GOSH, INC., BOX SF-5, OSHKOSH, WISC.

Enclosed is one Oshkosh B'Gosh size ticket. Rush me the FREE Bandanna as advertised.

Name.....

Address.....

City..... State.....

Portable farm buildings are made stronger with glue

By V. J. Morford

Portable farm buildings take a beating. These buildings suffer severe vibration and racking stresses while being moved. Vibration and stress seem to be the most important factors limiting the years of usefulness for this type of building.

Because portable buildings are not anchored to a permanent foundation, it's very important that the entire building be built into a rigid unit. This means maximum strength at the normally weak assembly points which are the sill, plate, and ridge.

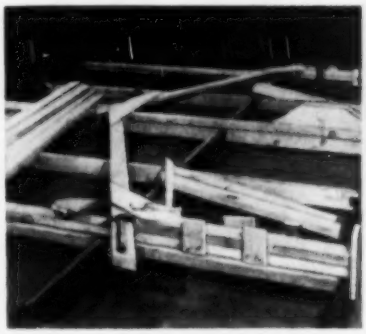
Glue can be used for maximum strength at these points and, at the same time, reduce material requirements, which means lower building costs.

Several types of glue are now in use in farm-building construction. Two common types are resorcinol-resin and casein glue. Both are crack-filler types of glue. Resorcinol-resin is waterproof and casein is water-resistant.

Casein glue is well suited to the construction of portable farm buildings. It is strong, relatively cheap, and water-resistant. Nailing gives enough pressure during the setting period.

Properly made glue joints are usually equal to or stronger than the wood itself. Tests have shown they are at least four times as strong as joints that are nailed only.

Usually, 1 pound of powdered glue is mixed with 2 pounds of water. This amount will cover about 45 square feet of glue joints. This is more glue area than is required in most portable [*Turn to page 112*



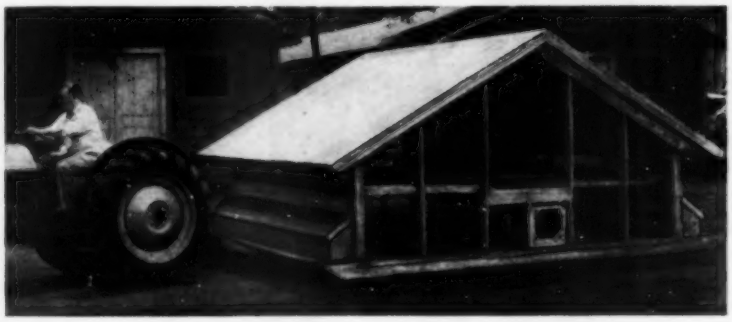
Build the rafter-stud assembly in a jig. This saves time and labor. Using a jig gives assurance that all framing units will be alike and the roof and sides of the building will be straight, plumb

Application of glue to roof boards eliminates the need for diagonal roof braces. Nails are used to hold the board in place until the glue sets

Glued board will make the joint between the sill and the stud rigid. Gluing the board provides the strength and rigidity needed at this point. The end boards are also glued and nailed

Photographs: Author

◆ **Gussets** cut from 1x6 boards are glued and nailed where the studs and rafters meet, and at the ridge. Apply the glue to both the gusset and area it will cover on rafter, stud



↑ **Finished range shelter,** glued at critical points, will withstand extensive vibration and racking stresses while being moved to a new location. Gluing saves material, labor

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GENERAL ELECTRIC FarmNews

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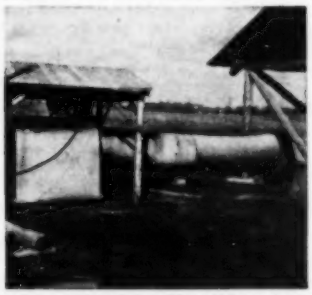


CROP DRIER KEEPS FEED COSTS DOWN, MILK PRODUCTION UP!

Mr. Atherton W. Hobler, owner of Woodacres Farms, Princeton, N. J., and Mr. G. M. Newlin, manager, both agree that their crop drier deserves credit for the green, leafy, "pasture-fresh" hay they are able to feed during winter months. "This top-quality, high-protein hay has kept our feed costs down and milk production up," says Mr. Newlin, "and with a crop drier on the farm, we're able to reduce losses from storm damage in the field."

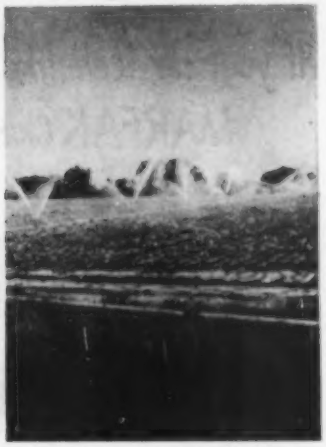
Hay dried in bales

The hay is dried on a platform 16 feet wide by 60 feet long. This platform has a shed-type roof and a 3 by 4 foot duct running the length of one side. Heated air from the crop drier is forced through this duct, out lateral ducts, and up through a slatted floor into the stacked bales of hay.

For other crops, too!

This crop drier also can be used for corn or small grains and enables farmers to prevent spoilage losses that often occur during storage. A 5-hp General Electric motor and G-E controls assure dependable, automatic operation. For more complete information, check "Crop Drier" on the coupon.

Unit for either shallow or deep wells enables farmers to economically adapt water system to changes in water supply



R. E. Kline (above left), and his brother Howard, rely on their dual-purpose pump to furnish water for irrigation in addition to other farm and home needs. Supplemental irrigation during dry spells (above right) pays off by boosting crop yield and quality.

Mrs. Raymond Kline and her daughter find running water makes housework easier.

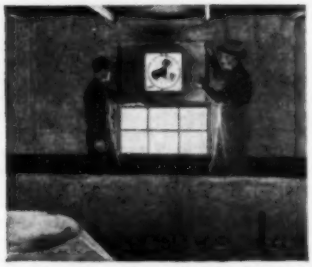
Available on the market today is a dual-purpose pump that can be easily converted to either shallow or deep well service. Conversion is inexpensive and simply requires changing a few attachments. Thus, if water levels drop or water supply conditions change, this convertibility feature may save the cost of a complete water system replacement.

Requires little attention

Since this pump has only one moving part and requires no lubrication, maintenance is kept to a minimum. A typical example of this ability to stay on the job with little upkeep is the performance of a pump on the Kline Brothers' Farm, Ashland, Ohio.

"Our G-E motor-driven pump has had three and one-half years of hard use," says Howard E. Kline, "but we've never had to touch it since it was installed." For more information, check "Convertible Water Pump" in the coupon.

WISCONSIN POULTRYMAN CUTS CHICK MORTALITY



Electric ventilators keep flocks, herds healthy and prevent decay of timbers and siding.

According to Ernest Eicher, Sun Prairie, Wisconsin, electric ventilators in his poultry houses have cut chick mortality and increased the growth rate. By removing moisture-laden air, the ventilators keep litter and houses dry and help control disease germs. The result is healthier chicks and more gain per pound of feed.

These ventilators have fast-acting back-draft dampers and are also suitable for dairy barns and milk houses. They are equipped with General Electric motors for quiet, dependable operation. For additional information, check "Electric Ventilator" on the coupon.

General Electric Company
Section 671-22C, Schenectady 5, N. Y.

I would like additional information on the following equipment.

☐ Convertible Water Pump
☐ Crop Drier ☐ Electric Ventilator

NAME _____
ADDRESS _____
CITY _____ STATE _____

If your car feels like *this*... it's time for MARFAK Chassis Lubrication

THAT CUSHIONY FEELING LASTS LONGER WITH **MARFAK!**

When your car and truck get *Marfak* lubrication, *you* get a better buy for the money. That's because *Marfak* lasts longer — for 1,000 miles or more! It's tough and stretchy, clings to points of wear and friction.

Marfak resists jar-out and squeeze-out, keeps on protecting in spite of dusty, bumpy roads. It also gives longer lasting protection against "washing action" of road water. Enjoy "cushiony" driving today! For *Marfak* lubrication, see your Texaco Dealer, *the best friend your car ever had.*

Custom-Made Havoline does two big farm jobs! It's right for your Diesel engines, right for gasoline engines, too. That's because Havoline *exceeds* Heavy Duty requirements. *New* car engines have closer clearances requiring Heavy Duty motor oil. And in any engine, Havoline delivers more power, better gasoline mileage, longer engine life, with fewer repairs. It pays to use Custom-Made Havoline, the best motor oil your money can buy.

THE TEXAS COMPANY

TEXACO DEALERS IN ALL 48 STATES

Texaco Products are also distributed in Canada and in Latin America

TEXACO

50

Portable buildings made stronger with glue

[*From page 110*]

buildings. The cost of casein glue is less than 2 cents per square foot of glued area. A few cents buys a lot of strength when you buy glue.

Casein glue that is properly mixed does not require perfectly fitted joints. The glue will fill cracks. However, close-fitting joints are preferred.

To mix the glue by measure, use equal parts of water and glue. When first mixed, the glue sets to a thick paste. After 15 minutes or so, the glue returns to a workable consistency—about like heavy cream. Thin, watery glue should not be used in gluing joints.

The working life of casein glue is about 10 hours. The glue mix should not be kept from one day to the next. Spread the glue mix with a fiber brush on both surfaces of the joint. The nail pressure supplied on 1" lumber by sevenpenny nails —spaced from 3" to 5" apart—usually is adequate. Nailing should be done immediately after the glue is spread. A glue line showing along the joint's edge indicates the right amount of glue was used.

The water-resistant qualities of casein glue require only "under-roof" protection. Casein-glued joints will withstand occasional soaking. However, the moisture content of the wood should not remain above 20 percent for prolonged or repeated periods. Preservatives should be present in the glue to make the set glue resistant to molds and other deteriorating organisms.

If the glued joint will be subjected to very humid conditions and repeated and prolonged soaking, then you had better use resorcinol-resin glue.

A portable range shelter is a good example of one of the more difficult portable buildings to construct.

The wall covering gives little or no bracing effect. The use of glue at critical points results in "welding" the lumber together, developing a strong, rigid structure. It is cheaper, too, because less material is required to get the needed strength.

In the construction of this building, first build the skids into a unit, using bolts, short pieces of angle iron, and glue. Careful construction is necessary so the skids won't turn or be pulled from under the building when it is moved.

> **A successful man is one who has formed the habit of doing things that failures can't be bothered doing.**
>
> —*Anonymous*

The rafters and studs are cut next and a jig for the rafter-stud assembly laid out on a level surface. The 1x6 gussets are then glued and nailed where the studs and rafters meet, and at the ridge. All rafter-stud assemblies are built in the same jig. This saves labor and makes all framing units alike. The assembled rafters and studs may be removed from the jig as fast as they are completed. The nails will provide enough pressure until the glue sets.

The rafter-stud assemblies are then raised into position and the ends of the studs toenailed to the sill. It isn't necessary to wait for the glue to set; you can go

ahead with the building operation. Temporary diagonals are used to hold the frame plumb. A 1x6 is then glued and nailed to the sill and the studs. This provides the strength and rigidity needed at this point. Other end members, to which the poultry netting will be stapled, also are glued and nailed. This eliminates the need for diagonal bracing.

The roof-sheathing boards are glued and nailed near the eaves, about the center of the roof, and at the gable top. Gluing and nailing at these points eliminates the need for diagonal roof braces.

> **Even when you are looking for trouble, there's no place like home.** —*Anonymous*

Here are some of the advantages of glue in the construction of a portable farm building:

1. The building is light in weight because less framing material is needed.
2. The building is stronger and more rigid, and better able to stand the vibration stresses due to moving.
3. Less material and labor are required to construct the building.
4. The result is a building that will last longer and cost less than a building constructed without the use of glue.

Detailed plans for the range shelter shown on page 110 are available through the Midwest Plan Service. If you want to order this plan, write your state college agricultural-engineering department and ask for Midwest Plan No. 77773. END

OPENINGS

for good field men

SUCCESSFUL FARMING FIELD SERVICE MAN

This is an opportunity for the right man to step into an established business that will pay far above the average income, year in and year out. And, you can be home every night.

Weekly salary and commissions plus group life insurance and hospital benefits make this an attractive opportunity for properly qualified men.

Qualifications

- *You are between the ages of 25 and 55, and seek a permanent sales position.*
- *You have a car.*
- *You have a farm background and will enjoy contacting farmers.*
- *You can pass a physical examination.*
- *You have a good reputation and education.*

If you are interested in this kind of opportunity and can qualify, write to our closest branch office listed below. Tell in your first letter why you think you are the man for the job.

Central
L. R. Akins
Box 537
Elgin, Illinois

Eastern
C. R. Canfield
Box 511
Ravenna, Ohio

Northwestern
S. F. Beebe
Box 555
Sioux Falls, South Dakota

Southwestern
T. C. Reid
818 Wyandotte
Kansas City, Missouri

Feed Minerals this EASY, ECONOMICAL WAY

AMONG successful livestock men it is no longer a question of feeding minerals. Experience has shown that extra minerals mean more meat, milk and wool, lower feeding costs, greater profits.

The big question is how to feed minerals most economically. More and more practical farmers are turning to this simple plan.

In one side of a divided mineral box they put a mixture of bone meal and ground limestone or their equivalent. This provides calcium and phosphorus in quantity, as well as traces of sulphur, magnesium and potassium.

In the other side of the box, they put Morton's Trace Mineralized Salt. This provides salt—sodium and chlorine—as well as adequate amounts of the trace minerals — iron, copper, cobalt, manganese, iodine and zinc.

Fed free choice, this simple, economical program gives livestock all the minerals they need for growth, repair, reproduction and for activating the enzyme, vitamin and hormone systems that convert feed into nutrients and that, in turn, build nutrients into meat, milk and wool.

So follow this simple plan . . . it will pay you handsomely. You'll save money. Your livestock will be healthier and thriftier. You'll make greater profits from your livestock. Ask your dealer for Morton's Trace Mineralized Salt by name. It's like a low-cost insurance policy costing only a few cents more per animal per year. That's why every pound of salt fed to livestock should be Morton's Free Choice Trace Mineralized Salt.

MORTON'S
Free Choice
TRACE MINERALIZED SALT
For Healthier, Thriftier Livestock

FREE—Just off the press, this 52-page book gives you the complete facts on feeding salt and trace minerals to all classes of animals. Mailed FREE and postpaid. Morton Salt Co., P. O. Box 781, Chicago 90, Ill.

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FLORIDA offers opportunity unlimited in the cultivation of almost every variety of flowering plant, fern and tropical fruit for commercial use. Last year greenhouse and nursery products totaled well over 15 million dollars in value, and demands are steadily increasing. Take advantage of FLORIDA'S temperate climate, abundant water, rich soil and fast transportation to Northern markets and get your share of this highly profitable business. Investments on any scale will reap big profits for the farmer who chooses FLORIDA for his business . . . for his home.

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It will pay you to find out more about farming opportunities in Florida. Write for this beautifully illustrated booklet today!

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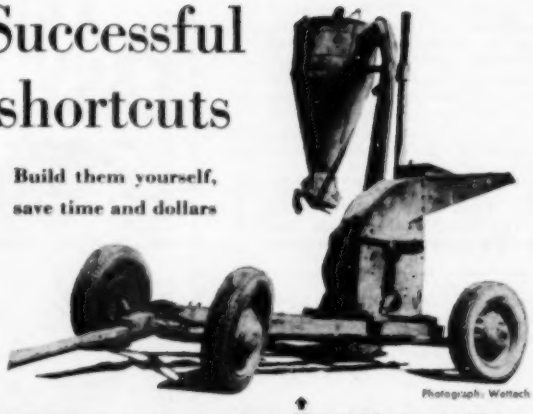
Successful shortcuts

Build them yourself, save time and dollars



Photograph: Wettach

↑ **Mounted hammer mill** saves time for Ed Holtkamp, Fort Madison, Iowa. Running gear is made from car axles framed with 4"x4"x8' rails bolted to the mill

McVickar

Refueling field equipment is easy with this trailer rig. The trailer box holds grease guns, oil, and tools for repair jobs. An angle-iron frame bolted to the trailer supports the large fuel barrel. This handy fuel rig was built by Leroy Getting, Sanborn, Iowa

Dye

Rear-view mirror mounted on tractor saves twisting around to watch trailing farm equipment. Farmer Roy Lippman, Nodaway County, Missouri, uses a mirror

Wettach

A range boiler, cut in half, is mounted under a 400-gallon stock tank on Junior Coon's farm, Morning Sun, Iowa. Ordinary bathroom float is used to keep trough filled. The outfit is mounted on wood skids

Wettach

Portable bale elevator was built ➔ by Gary Van Amerongen, Mount Pleasant, Iowa. Old car axle and wheels were used for running gear. The elevator is 24' long, a little wider than bale. Unit's height is adjustable

THE BANNIERS EXPECT Big Things FROM THEIR "CAT" D2 TRACTOR!

A big day for the Banniers of Yarmouth, Iowa! Their new "Cat" D2 Tractor has just arrived . . . and their faithful old D2 retires! Hear Louis Bannier, Jr. recall experiences with his old D2. Read carefully . . . his experience may be yours!

The Bannier family . . . left to right: Mark, Jo Ann, Janet, Mollie, Louis Sr., Louis Jr., and Jim McCormick, "Caterpillar" Dealer service representative.

"WE'VE used our first 'Cat' D2 Tractor for 12 years . . . equal to 4295 hours at wide open throttle . . . and we've been mighty pleased with it. It's still in good shape, but we're buying the new D2 for the 7 extra horsepower. The old one saved us $400-$500 in fuel bills every year over gas wheel tractors. Only cost $84 maintenance in 12 years . . . and that for track pins and bushings. Rubber tires would have cost a lot more! D2 always starts and runs right. Even pulls the car in winter. We pull 3-14s with the old D2, will pull more with the new one. We used it for everything . . . clearing trees . . . stretching fence . . . pulling other tractors out of the mud. D2 doesn't pack the soil. We've saved 25% of our wheat crop that would have been wasted without the D2 . . . wheel tractor and combine bogged down . . . but not the 'Cat' D2 Tractor! We've even pulled a wheel-tractor with mounted corn picker to finish picking on time!"

CATERPILLAR TRACTOR CO., PEORIA, ILLINOIS

CATERPILLAR REG. U. S. PAT. OFF.

DIESEL ENGINES • TRACTORS • MOTOR GRADERS
EARTHMOVING EQUIPMENT

Diesel Farm Tractors

The new "Cat" D2 Tractor takes over "Old Faithful's" job.

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WITH

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ESPECIALLY ENGINEERED FOR

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TRAP ENGINE OIL DIRT AS SMALL AS 1/100,000 OF AN INCH

AC Oil Filters are designed to help preserve and protect engine power and lengthen the life of moving parts. They provide the finest filtration money can buy, removing particles as fine as 1/100,000 of an inch. Whenever you need a new oil filter element—regardless of the make of filter on your car, truck or tractor—install an AC *Aluvac* Element. It will increase operating satisfaction and decrease the need for repairs.

Standard or Optional Factory Equipment on Buick, Cadillac, Chevrolet and Oldsmobile Cars . . . Chevrolet and GMC Trucks

AC SPARK PLUG DIVISION GENERAL MOTORS CORPORATION

Planting plan

[*From page 49*]

When is the time to plant corn? Whether you realize it or not, you are in a better position to answer that question than anyone else. After weather, insects, and all other crop hazards have been taken into account, the old rule, "Don't be the first or the last to plant your corn," is still good. Plant corn as closely as possible to the date the good farmers in your community have come to regard as the most favorable.

Today's farm machinery and modern hybrid corn give you a lot of new opportunities at corn-planting time. When the job had to be done with horse-drawn planters, there usually was a week or two of spread. This provided corn for early feed as well as corn for cribbing later. Now you can accomplish the same spread easily by using hybrids of differing maturity and plant all your corn in a one- or two-day period. The tractor and modern farm equipment enable you to take advantage of two or three days of good weather to get your entire corn crop in the ground. The chances of not having that much good weather at normal planting time are slim indeed.

In areas where the corn borer and other insects have been a problem, there has been talk of delaying planting. There seems to be such slight chance for corn-borer damage in 1952 that your best bet probably will be to plant corn at the regular time. Then control the corn borer with insecticides later, should an emergency develop.

Depth of planting also needs close attention. The idea of putting the kernel down 10 times as deep as the kernel is wide has a lot to recommend it and indicates a planting depth of 2 to 2½ inches. However, the kernel should be planted in moist soil. If your ground is too dry to permit that at reasonable planting depths, it might be better to wait until after a shower.

Rate of planting. Cornbelt farmers are planting for higher populations of plants per acre than they did a few years ago, and the trend may continue for a number of years. When we were using open-pollinated corn in the early Thirties, best yields were secured with 6,000 to 8,000 plants to the acre. Crowding much beyond that stepped up the percent of barren stalks and disease damage to such an extent that yields actually tended to decline as plant populations went higher.

SUCCESSFUL FARMING

Hybrid corn in general use during the Forties demonstrated that better yields could be secured with 10,000 to 12,000 plants to the acre. Well-adapted hybrid corn could stand more crowding without giving way to barrenness and disease.

Rate of planting and total plant populations must be keyed closely to soil fertility and moisture conditions. The corn farmer who maintains a very high level of soil fertility and has opportunity to irrigate or is willing to take the chance on scanty rainfall is now justified in pushing his corn populations up to 16,000 to 20,000—or even 22,000—plants per acre. With favorable weather this should *conservatively* produce a yield of 100 to 125 bushels an acre—or even higher.

Farmers interested in more plants per acre should plant hybrids geared to these ultrahigh plant populations. Some of the country's outstanding hybrid-corn breeders are trying to develop new hybrids that will produce high yields even when planted at the rate of 20,000 to 25,000 plants per acre.

High plant populations tend to produce smaller ears. The value of the large ear was obvious when corn was picked by hand, but now that machine harvest is nearly universal, there is no objection to producing more small ears.

You can battle insects in May. Development of new chemicals such as benzene hexachloride, commonly called BHC, lindane, or toxaphene is placing powerful new weapons in corn farmers' hands.

Cutworms, often responsible for poor stands, can be controlled by soil application of BHC or lindane at planting time. Even after the damage begins to appear, further injury can be minimized by spraying with toxaphene. BHC and lindane can also be used where corn rootworms have been a problem.

Farmers discovered last year that wireworms and seed-corn beetles could be controlled by merely dusting their corn with a tablespoon or two of lindane or BHC per planter box. Entomologists warn, however, that if cool wet weather follows, germination may be hindered where you use this seed-treatment method.

If you do a good job on all these points in May, and arrange for the chemicals and side-dressing fertilizer you'll soon be needing, only a catastrophe such as drouth or hail is likely to bar your way to a big corn crop.

In next month's issue: "Keys to More Corn—Keep Corn Healthy."

PATENTED
CORALOX
INSULATOR

AC SPARK PLUGS

Especially Engineered for
TRACTORS
and standard on nearly half of all new cars and trucks

CORALOX, AC's patented Insulator, with its extra toughness and amazing resistance to heat shock, is the principal reason for the longer life and better performance of AC Spark Plugs.

AC has engineered a type of spark plug for superior service in every make of tractor—plugs that won't short when the load is heavy—plugs that stay clean longer and fire surely at all engine speeds.

More and more farmers are using AC Plugs in their tractors—the only plugs with patented *CORALOX* Insulator.

AC SPARK PLUG DIVISION GM GENERAL MOTORS CORPORATION

Crusty pans drive you crazy?

BRILLO soap pads—
TWICE the SHINE in half the time!

Shine tests *prove* Brillo outshines other types of cleansers tested! A square metal-fiber Brillo pad-with-soap *whisks off* crust. Gives pans *twice the shine in half the time!*

RED BOX—*soap-filled pads*
GREEN BOX—*pads plus cake soap*

THRIFTIER—5 AND 12 PAD BOXES

New improved Brillo lasts longer!

—MORE SHINES IN EVERY PAD!

Citrus fruit gives food a lift

1. Orange Molded Dessert
2. Orange-Ginger Ale Salad
3. Grapefruit-Tuna Salad
4. Fruit Ambrosia
5. Lemon Party Fluff
6. Florida Orange Biscuits
7. Orange Bowknots

Give spring a hearty welcome with these quickly made salads, desserts, and breads—as fresh and full of sunshine as the season itself. They're the most refreshing and best-tasting tonic for winter-weary appetites we know of.

Orange-Ginger Ale Salad

Serves 8

Pour . . . . . **1/3 cup lemon juice** in saucepan
Sprinkle **2 envelopes unflavored gelatine** over lemon juice
Let stand about 5 minutes.
Heat mixture over hot water until gelatine is dissolved.
Add . . . . . **1/2 cup sugar**
1 cup orange juice
1/4 teaspoon salt
2 cups ginger ale
1 cup orange sections
1/2 cup pecan halves
Pour into 8 individual molds.
Place in refrigerator.
Chill until firm.
Serve on crisp **leaf lettuce**
Garnish with:
mayonnaise
pecan halves.

Orange Molded Dessert

Serves 6

Soften . . . . **1 tablespoon unflavored gelatine** in
1/4 cup cold water
Add . . . . . **1 cup hot water**
1 tablespoon sugar
1/8 teaspoon salt
Stir until dissolved.
Add . . . . . **2/3 cup pineapple juice**
1 tablespoon lemon juice
Set aside to cool.
Rinse 5-cup ring mold with cold water.
Pour in a little gelatine mixture to cover bottom of mold.
Chill until firm.
Arrange . **1/2 cup orange sections**
4 maraschino cherries, cut in half lengthwise
Add more gelatine mixture to hold fruit in place; chill until firm.
Add . . . . . **1 cup pineapple tidbits,** drained
1 banana, diced, to rest of gelatine mixture
Turn mixture into mold.
Chill until firm.
Serve with **whipped cream**
Garnish plate with **orange sections.**

[*Turn to page 120*

LOWEST PRICED IN ITS FIELD!

This beautiful new Styleline De Luxe 2-Door Sedan lists for less than any comparable model in its field! (Continuation of standard equipment and trim illustrated is dependent on availability of material.)

. . . and see how the savings go on and on!

Lots of people find it hard to believe that Chevrolet—so big, smart and comfortable—is the lowest-priced line in its field.

Seeing how much pleasure and satisfaction it provides, you might naturally expect to pay more. Instead, at lowest cost, you get fine features that only Chevrolet in its field offers:

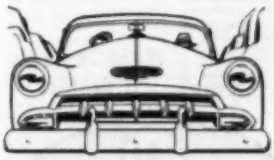
Wonderful new Centerpoise Power that "screens out" vibration; Royal-Tone Styling with its color-matched interiors; new softer, smoother Knee-Action ride—and plenty more.

Now consider this. *The money you save on purchase price is just the beginning!* People who know will tell you that you just can't beat a Chevrolet for keeping costs down. Gas economy is good. It's thrifty with oil. And Chevrolet is famous for low upkeep costs.

Talk it over with your Chevrolet dealer. . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

Improved Airplane-Type Shock Absorbers Are Sealed for Life

The new, softer ride adds comfort, makes long trips seem shorter, eases strain on body and chassis. This finer ride control is *sealed for life* in sturdy airplane-type shock absorbers.



39-Year Proved Valve-in-Head Engine Design

Valve-in-Head is the modern trend for efficient, economical power. Chevrolet has built more valve-in-head engines than all other manufacturers combined. This experience pays off.

Extra-Large Brakes with Dubl-Life Rivetless Lining

Chevrolet's Jumbo-Drum brakes are extra large for greater stopping power with less pedal effort, less lining wear. Linings are bonded to brake shoes—no rivets. Lining life is practically *doubled.*

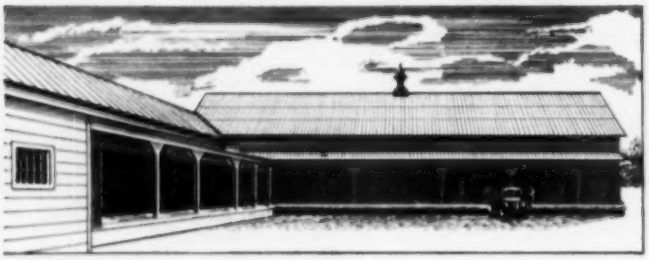
MORE PEOPLE BUY CHEVROLETS THAN ANY OTHER CAR!

CHEVROLET

The Only Fine Cars **PRICED SO LOW!**

SUPER
Channeldrain
ROOFING NEWS

2 Channeldrain Jobs Get DOUBLE PRAISE!



"DURABLE, ECONOMICAL," SAYS OWNER

Arthur Kurtz and his brother, of New Paltz, N. Y., have had long experience with Super-Channeldrain Roofing. They installed Channeldrain on one barn in 1937, liked it so well they roofed another with it in 1944. Arthur says of Channeldrain, "We have had no trouble with it. Only once or twice have we had to renail a few sheets. It makes a durable and economical roof..." A good record for 14 years—but no wonder, with Channeldrain. Because, as illustrated...

Here Arthur Kurtz tells a Wheeling Farm Representative about his Channeldrain roofs.

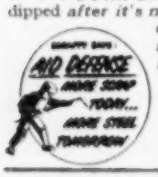
SUPER-CHANNELDRAIN ...BETTER 3 WAYS!

1. Extra Lap for more thorough drainage.
2. Extra Strength of sturdy COP-R-LOY Steel.
3. Extra Rust Resistance from protective zinc coating.

When it Rains it Drains!

WHEELING WARE PROVES ITSELF TOO!

Wheeling Ware is famous as *ware that wears and wears*. Good reasons: the strength of sturdy steel, and the protection of DURA-ZINC-ALLOY. Hand-dipped *after it's made*, Wheeling Ware comes to you sealed against leaks, guarded against corrosion!



Wheeling

WHEELING CORRUGATING CO.
WHEELING, WEST VIRGINIA
Please send information on items checked.
☐ Channeldrain Roofing ☐ Wheeling Ware
NAME _____
STREET _____
CITY _____ STATE _____

OFFICES AND WAREHOUSES:

Wheeling · Atlanta · Boston · Buffalo
Chicago · Columbus · Detroit · Kansas City
Louisville · Minneapolis · New Orleans
New York · Philadelphia · Richmond · St. Louis

Citrus fruit

[*From page 118*]

Grapefruit-Tuna Salad[1]
Serves 6

Section . . . **2 grapefruits**
Flake . . . . **1 7-ounce can tuna fish**
Combine with:
½ cup diced celery
1 tablespoon chopped pimiento
½ cup mayonnaise
⅛ teaspoon salt
¼ teaspoon Tabasco
Arrange tuna mixture in **lettuce cup**
Garnish with **grapefruit sections.**

Lemon Party Fluff
Serves 6

Soften . . . . **2 teaspoons unflavored gelatine** in
3 tablespoons cold water
Beat in top of double boiler:
4 egg yolks
½ cup lemon juice
Beat in . . . **⅔ cup sugar**
Add gelatine.
Continue beating over hot water until custard thickens; cool.
Beat . . . . . **4 egg whites**
⅛ teaspoon salt until soft peaks form
Beat in . . . **3 tablespoons sugar** until stiff peaks form
Fold egg whites lightly into custard.
Line 6 sherbet glasses with
vanilla wafers
Place fluff in sherbets; chill.
Garnish with **maraschino cherries.**

Florida Orange Biscuits
Makes 12

Combine **1 tablespoon butter**
⅓ cup orange juice
⅓ cup sugar
1 tablespoon grated orange peel
Bring to rapid boil and cook 3 minutes.
Place 2 teaspoons of glaze in each of 12 muffin-tin cups.
Prepare . . **2 cups biscuit mix** according to directions on package
Add . . . . . **1 tablespoon grated orange peel** to mix before adding the liquid
Turn dough out on floured board.
Knead 8 to 10 times.
Roll into 10x12x¼-inch rectangle.
Brush with:
1 tablespoon melted butter
Sprinkle with **¼ cup sugar**
Roll as for jelly roll.
Cut into 1-inch slices.
Place cut side down in muffin cups.
Bake at 375° for 20 to 25 minutes.

Fruit Ambrosia
Serves 6

Section . . . **1 grapefruit**
Slice . . . . . **3 oranges**
Arrange in large bowl:
grapefruit sections
orange slices
1 cup fruit cocktail, drained
2 bananas, sliced
Combine **2 tablespoons lemon juice**
½ cup honey
Sprinkle over fruit.
Top with **½ cup shredded coconut**
Chill.

Orange Bowknots

Makes 2 dozen

Combine **1¼ cups scalded milk**
½ cup shortening
⅓ cup sugar
1 teaspoon salt

Cool to lukewarm.

Soften in above mixture:
1 cake compressed yeast or
1 package granular yeast (milk should be warm for granular yeast)

Add.....**2 eggs,** well beaten
¼ cup orange juice
2 tablespoons grated orange peel

Beat thoroughly.

Add.....**5 cups enriched flour**

Mix to soft dough.

Cover; let stand 10 minutes.

Knead on lightly floured surface.

Place in greased bowl and let rise in warm place (82°) until doubled in bulk, about 2 hours.

Punch down.

Roll dough ½ inch thick; cut in 10-inch strips, ½ inch wide.

Tie each in a knot.

Arrange on baking sheet.

Cover.

Let rise until doubled.

Bake in hot oven (400°) 15 minutes.

Spread with:
Orange Topping

Blend....**2 tablespoons orange juice**
1 teaspoon grated orange peel
1 cup sifted confectioners' sugar. END

Do you know how to measure shortening?

To measure shortening, partially fill glass measuring cup with water, leaving enough space for measurement of fat. Push fat down until water reaches 1-cup mark. For example, for ⅓ cup of fat, fill the measuring cup to ⅔ mark with cold water. Add fat until water line reaches 1 cup. To measure ¾ cup, fill measuring cup to ¼ mark with cold water, then add fat until water line reaches 1 cup. Use this procedure for all fat measurements. No messy utensils to clean up later since you can use the same cup you used for measuring the liquid.

You'll paint faster—easier-better-with

Velvet-like in smoothness—Rubber-like in toughness

NEW BRUSH MAKES PAINTING REAL FUN!—With Pittsburgh's new FLEET-WING Wall Coater, paint goes on more easily and quickly. Astonishingly light and easy to handle. Covers 7 inches in width at one stroke. Its synthetic bristles give you a coating of proper thickness and color uniformity.

CLEANS IN A JIFFY—New Wallhide rubberized Satin Finish is ideal for a home full of lively youngsters, because it can be cleaned with so little effort. Even stubborn stains such as grease, crayon, ink spots, lipstick or finger smears can be washed off quickly and easily. Repeated scrubbing will not harm its pleasing surface.

● Here's a truly remarkable interior wall paint that flows smoothly on any kind of wall surface. You can stop or start any time, without apparent laps or brush marks—touch up missed spots later—yet always be sure of a color-perfect finish. This wonderful rubberized Wallhide surface resists scuffing or marring and can be washed repeatedly without damaging its smooth, velvety sheen. Ask your Pittsburgh Paint dealer to show you the wide variety of attractive colors.

IT'S RUBBERIZED

- To go on quickly and easily
- For amazingly fast drying
- For repeated washing and scrubbing
- For non-cracking flexibility
- To withstand wear and abuse
- For long-lasting beauty and protection

Paint Right with Color Dynamics
Paint Best with Pittsburgh Paints!

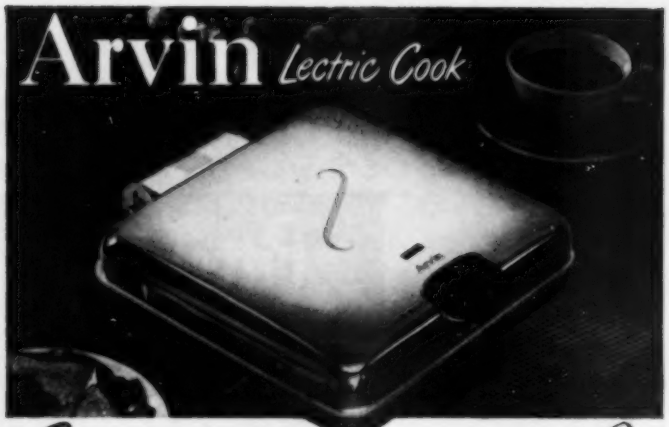
● Ask your Pittsburgh Paint dealer for a free copy of our new and enlarged booklet which tells how to use COLOR DYNAMICS in your home or write to The Pittsburgh Plate Glass Company, Paint Division, Dept. SF-52, 632 Duquesne Way, Pittsburgh 22, Pa.

PITTSBURGH PAINTS

PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

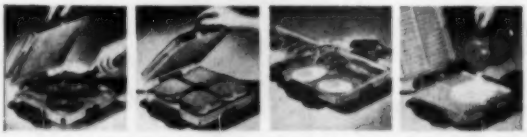
PITTSBURGH PLATE GLASS COMPANY

Arvin *Lectric Cook*



Cook for a crowd or a twosome

right at the table! Arvin Lectric Cook is America's most versatile cooking appliance! Grills, fries, bakes, toasts—delicious meals or taste-tantalizing snacks! Converts in seconds to a fully automatic waffler. Only $29.95, complete with waffle grids. Arvin Industries, Inc., Columbus, Indiana.



Always with him—or at him?

Don't let "Coffee Nerves" spoil your disposition!
SWITCH TO POSTUM . . . it's caffein-free!

Are you often cranky, irritable—easily upset? Do you fly off the handle for no reason at all? Your trouble may be "coffee nerves"—brought on by the *caffein* in coffee, or tea. While many folks can stand caffein, others suffer sleeplessness, nervousness, indigestion. So make the change that's brought relief to millions—switch to *caffein-free* POSTUM! See if you don't sleep better, feel better, enjoy life more! Postum is thrifty, too—costs only *about ¼ as much* as coffee, cup for cup. And delicious Instant Postum is made instantly, right in the cup!

A Product of General Foods

See one of these stores for home planning help

Get FREE help in planning your home decorating, building, and remodeling in any of these stores cooperating with the *Successful Farming* Home Planning Service:

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- Champaign . . . . . Robeson's, Inc.
- Decatur . . . . . Block & Kuhl Co.
- Quincy . . . . . Block & Kuhl Co.
- *Springfield . . . . . John Bressmer Co.

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- *South Bend . . . . . Robertson Bros.

Iowa
- *Cedar Rapids . . . . Smulekoff's
- *Davenport . . . . . Petersen-Harned-Von Maur
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- Fairfield . . . . . Bradshaw's
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- *Milwaukee . . . . . Gimbel Bros.

**Stores with specialists in home planning.*

A counting board for frozen foods

Is the content of your home freezer or locker one of the mysteries of your household? Here's a counting board that keeps track of frozen-food packages with almost no effort on your part.

Both the counting board and the tag box shown below can be made easily and inexpensively.

Take a small breadboard—or any other piece of board, for that matter—and bore a hole at the top for hanging it. Paint on the board—or write with a wax pencil—the names of the foods you will be likely to freeze in largest amounts. (Include one "miscellaneous" label, too.)

Above each label, insert a long (about 3-inch) right-angle screw hook. Be sure to allow enough space between the hook and the label so hanging tags won't cover up the names.

Two sizes of metal-rimmed price tags serve as "counters." Get these from a dry-goods store, or from a wholesale paper-goods supply house. These tags are strong enough to stand repeated use. They are already punched so they can easily be hung.

For each package of food put in frozen storage, hang a tag on the appropriate hook. (And, for each package removed, take off a tag.) Use the large tags *for every fifth package only*. This way, you can take inventory almost at a glance—simply count the *large* tags and multiply by five!

Those tags hung on the "miscellaneous" hook may have little notes written on them, such as "Use before July 15," or "Leftover from Easter dinner." For more detail, *any* of the tags may be coded with notes or colored-crayon marks.

As a holder for the unused tags, hang an old salt box beside the counting board. A sawed-off cigar box could also serve this purpose.

If you want the counting board and the tag box to match your kitchen, take a tiny paintbrush to them—or decorate with gay decal stick-on designs.

Pretty or not, this set is practical for any busy freezer user!

Stay in the swing— Avoid

"Tell-Tale Mouth"

(BREATH NOT AS SWEET, TEETH NOT AS CLEAN AS THEY CAN BE)

Ipana keeps your whole mouth cleaner, sweeter, sparkling!

Gets teeth cleaner! Studies by dentists proved it! What's more, for effectively fighting tooth decay, *no* other tooth paste—ammoniated or regular—has ever been proved better than Ipana.

Sweetens breath instantly! Yes, when you use Ipana, you actually help remove *causes* of embarrassing mouth odor—leave your mouth feeling clean, feeling good—*sparkling* clean and fresh!

And don't forget your gums! Brushing teeth from gum margins toward biting edges lets Ipana's *active* cleansing foam help *remove* irritants that can lead to gum troubles!

Teeth, breath, gums—all three can cause "Tell-Tale Mouth." Avoid it with refreshing, minty Ipana Tooth Paste! See for yourself. Get a tube of Ipana today at any drug counter.

Ipana Tooth Paste

A Product of Bristol-Myers

NEW! For better cleansing, use the new DOUBLE DUTY *Multifine* Tooth Brush. Gives you over 1400 fine, springy-soft nylon bristles—plus the *twist* in the handle. 1000 dentists helped design it.

9 out of 10 tractors are factory-equipped with Purolator

● Successful farmers by the thousands appreciate the important job done by the Purolator* Oil Filter. They know there's no better way to guard against costly, time-consuming tractor breakdowns than by keeping a fresh Purolator Refill on the job. It's the sure-fire way to trap dangerous sand, grit and sludge *before* they damage vital engine parts.

To keep your tractor out of the repair shop . . . keep a good stock of Purolator Micronic* Refills on hand for frequent, regular changes. Purolator's accordion-type design gives up to 10 times more filtering area. Tiny pores trap dirt and dust you can't even see.

*Reg. U.S. Pat. Off.

P.S. Put fresh Purolator Refills into your trucks and cars regularly, too. It's low-cost "insurance" against expensive engine repairs.

PurOlator

(ENGINEERED FOR EVERY MAKE OF TRACTOR, TRUCK AND CAR)

Micronic OIL FILTER

May

Poultry pointers

Separate or sell roosters. Get rid of old roosters at the end of the hatching season. They only add to the disease problem and feed costs. If they're not sold, they should at least be separated from the rest of the flock. Check with the hatcheryman about the time to get rid of breeding males. Egg quality is easier to keep high in hot weather if the eggs are infertile.

Feeds housed birds from outside. A chicken feeder (pictured below), with an opening to the outside, makes feeding easy for Willard Robillard, Plymouth County, Massachusetts. All he has to do is lift up the cover and dump in the feed.

The hopper is built on the outside of

the hen house and has an opening through the wall. Robillard's only chore on the inside of the laying house is to check the automatic waterers when gathering the eggs.—*C. L. S., New Hampshire.*

Radiation boosts production. What effect does "germicidal" ultraviolet radiation have on laying hens? Tests at the Agricultural Research Center, Beltsville, Maryland, show that exposure of laying hens to radiation of so-called ultraviolet light stimulates egg production. This was so even though the hens already were receiving ample supplies of vitamin D in their ration.

The tests were conducted in a specially constructed underground poultry house which made possible the complete control of the artificial lighting. Lighting was controlled by an electric time clock which kept light on in the pens for 14 hours of each day.

In the five different tests—each of 6 to 10 months' duration—the hens kept in the absence of sunlight, but exposed to the ultraviolet light, laid from 10 to 19 percent more eggs than did those kept under the same conditions but without the ultraviolet-light radiation. All birds were fed a ration which provided all the known ingredients essential to health and high egg production.

In one test, birds on the normal diet, with ultraviolet light, laid 5 percent more eggs than did those under ultraviolet radiation receiving double the normal vitamin D requirement in their feed. This led the researchers to believe the increase in production was due to some factor other than vitamin D from the ultraviolet light.

Also, in this test, hens on the normal ration plus ultraviolet radiation laid 14 percent more eggs than did the birds on the normal ration, but without the ultraviolet radiation. They also laid 15 percent more than the unradiated birds that received the extra vitamin D in their ration.

Further studies are being conducted on the effect of ultraviolet lamps in open-front poultry houses where the birds are exposed to sunlight.

Range waterer has everything. The homemade water fountain (pictured below) built by Arthur Hinds, Middlesex County, Massachusetts, combines several good ideas.

Photographs: Strattin

Shaped like a feeder with a roof over it, the long water trough is mounted on a wide wire platform attached to skids. A large toilet float serves as an oversize regulator of the water flow. Wire over the valves protects the mechanism from curious birds.

This type of water fountain not only prevents damp areas around waterers, but keeps the birds out of their droppings while drinking. An outlet at the far end drains the trough for easy cleaning. It is easily moved around the range or yard.—*C. L. S., New Hampshire.*

Don't guess on poultry disease. Here are five poultry diseases often easily mistaken for one another: bronchitis, coryza, Newcastle disease, chronic fowl cholera, and laryngotracheitis.

Dr. L. E. Hanson, University of Illinois veterinarian, warns that guessing about these diseases often causes severe losses. If disease strikes, take several live sick birds to your veterinarian or a diagnostic laboratory. Prompt and correct diagnosis goes a long way toward the control and prevention of disease.

Regardless of the disease in your flock, here are several pointers which will help sick chickens recover: Provide good ventilation to assure dry quarters. Keep plenty of good feed and clean water before them. Strict sanitation in your poultry house also helps to prevent disease.

Newcastle disease and laryngotracheitis can be controlled by vaccinating the birds during the range season. Coryza, bronchitis, and fowl cholera can best be controlled by selling old hens at the end of the laying season.

[*Turn to page 126*

THE RANGE THAT MAKES GOOD COOKS BETTER

1001 Cooking Speeds!

From simmer to sizzle—dial any heat you want—with this "Lectro-Host"

L & H Electric Range

Now you can cook the clean, modern, electric way, without being tied down to just five or seven cooking speeds!

The Vari-speed controls on this deluxe L&H range work like the volume control on your radio, give you any number of heat levels — a thousand, or more. You have *exactly* the heat you want for each cooking job.

And that is just *one* of the work-saving features of this advanced electric range. Others include: self-computing timer, color-keyed heat indicator, single oven control, and the biggest standard-range oven.

See your L&H dealer now — or write for his name.

A. J. Lindemann & Hoverson Co.

The Finest in Home Appliances since 1875

Milwaukee 13, Wisconsin

A. L&H "Lectro-Host" Water Heaters — for long life and low-cost hot water.

B. L&H "Lectro-Host" Refrigerators — just what you want in kitchen convenience.

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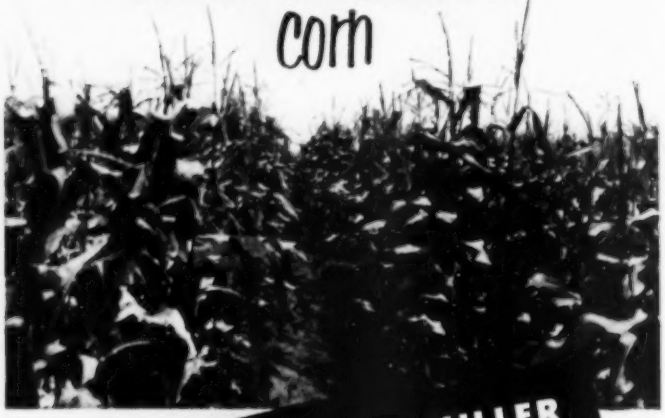
first choice!

for weed control in corn



2-4 DOW WEED KILLER

Formula 40

High corn yields tell a success story for weed control with Formula 40! Over the past four seasons, growers have watched their corn grow with new vigor and yield extra bushels per acre—the result of spraying young corn with this farm-tested and farmer-approved Dow weed killer.

Formula 40 is the best 2,4-D AMINE weed killer you can buy for low-volume spraying. It has been used successfully on thousands of acres of corn and small grains. Equally effective in hard or soft water—it won't clog spray equipment. Ask your state experiment station or your Dow dealer for advice regarding the recommended dosage for local strains of corn and best stage of growth for spraying.

Where an ESTER formulation is preferred—Esteron® 44, when used properly, fills the bill! It is especially useful for spraying stubble fields for *post-harvest* weed control.

Ask your dealer for

DOW WEED KILLERS

Use Dependable Dow Agricultural Chemical Products

- Weed, Brush and Grass Killers
- Insecticides
- Fungicides
- Plant Growth Regulators
- Grain and Soil Fumigants

THE DOW CHEMICAL COMPANY
Agricultural Chemical Department
MIDLAND, MICHIGAN

DOW
CHEMICALS
INDISPENSABLE TO INDUSTRY AND AGRICULTURE

Poultry

[*From page 125*]

Hormone speeds up cockerel gains. When Mrs. Cassius Hardy, Mountrail County, North Dakota, treated 145 cockerels with diethylstilbestrol, often called stilbestrol and generally referred to as a synthetic female hormone, it resulted in 180 pounds of extra weight in eight weeks.

Mrs. Hardy found that the treated cockerels weighed 1¼ pounds more at market time than the cockerels receiving no treatment.

This synthetic hormone comes in a small pellet form and is injected under the skin in the neck of the chicken. Male birds treated with this hormone become less active and their combs shrink. Faster gain is the result of this inactivity.

As profit from farm-run cockerels has almost disappeared, the use of this hormone may add to their value. Some Midwest processors are offering premium prices for hormone-treated birds.

Narrow margins—more efficiency. Net income for poultry producers in 1952 will depend upon increased efficiency in feeding, management, and marketing, according to extension economists at Ohio State University. Profit margins to producers probably will be narrower in 1952 than last year. Feed costs are expected to increase; other production costs will also be higher.

The economists outlined these practices to help poultry producers increase profits this year: Make a detailed study of the labor routine and the size of operation. Increasing size of operation may lower costs per unit. Maintain good records and balanced rations. Grain prices will be higher in proportion to those of protein feeds. Poultrymen will need to know where they can obtain feed and place early feed orders.

Check for year-round markets, especially in your local area. This is especially important to egg producers. An outlet for spring production and attention to quality at this time will increase profits.

Broiler producers will have to use facilities throughout the year and keep overhead costs down. Turkey growers with know-how and management may be able to increase profits by carrying their marketing programs through processing and retailing.

Leukosis is big killer. The disease that accounts for the greatest loss of birds to the poultryman is leukosis, or range paralysis. Despite the long period the disease has been investigated, poultry scientists know very little about its nature. Leukosis may cause paralysis, enlarged liver, blindness, or tumors in the abdominal cavity.

Thin, anemic birds, poor comb development, and lack of breast muscles are typical symptoms of birds suffering from this disease. Big-livered birds that seem to die overnight of no apparent cause are often found to have a hemorrhage of the liver.

There is little to be done for such birds. Diseased birds should be removed from the flock as soon as symptoms are noticed. If birds show only slight symptoms of leukosis, they are acceptable on poultry markets. So far, the only sure way of controlling the disease is to isolate the young chicks completely from the old hens. **END**

The country church

Zeal for a denomination has blasted the hopes of many a farm community for a common place of religious worship. Unable to properly support more than one church, public-spirited farmers will try to bring together scattered Protestant groups. All goes well until a zealous member or minister places his denomination ahead of the community welfare. Then the bleak outcome—failure—is the rule.

Unless a local group has normal relationships with some denomination, it has great difficulty obtaining a pastor. Literature and missions offer further problems. Too many denominations with headquarters in Eastern cities display little interest in the open-country church.

Perhaps the answer for a nonsectarian church must be worked out by groups outside denominational jurisdiction. Or much better, by a cooperative effort of groups having large numbers of weak congregations in rural areas. The desire of farm people for church services is strong and certainly seems to be growing. Something will be done soon to get such church services.—*Kirk Fox.*

The stand-by generator

"You don't miss the water until the well goes dry," is an old saying well adapted for today's farm dependence upon electricity. Fortunately, service is rarely interrupted and then for short times. Heavy coatings of ice, blizzards, and tornadoes can cause anxious, costly waits.

In North Dakota along the Red River, 97 stand-by generators are ready to carry on when regular service is interrupted. More than half the families among those using this equipment listed operation of their automatic furnace as the main reason for the investment. Last year 78 of the 97 owners used their generators from 1 hour to 480 hours. Electrically operated water systems and milking machines were also high among reasons for buying.

Last summer in a large dairy barn in eastern New York, I asked the owner what he thought of his stand-by outfit. His area has excellent service from high-lines. I found him well pleased. Outfits operated with a tractor are well liked, as they save buying another gasoline engine. A generator that can put out at least 3,000 watts is the smallest size capable of operating a milking machine, freezer, water system, and the normal number of lights. Unfortunately, these stand-by outfits can't be used to step up the power on an overloaded regular line. Extra-heavy loads are getting to be a common problem on many lines during the busiest hours. Development of a "booster" as well as a stand-by source of electric current for the farm is needed.—*Kirk Fox.*

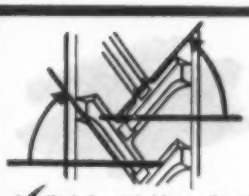
Ever Take A Tractor Tire Apart?

You do it everytime you buy one. You look at each feature. The cleaning action, the length and angle of the lugs, and amount of rubber put on soil surfaces. You add them up and see how they'll work together on your farm. Gillette knows that—that's why we've taken our new Super Power Bar apart right here.

✔ **Check** Super Power Bar's comfort spacing. The lugs concentrate more rubber in the center for smoother riding on any surface.

✔ **Check** Super Power Bar's bridged open center construction. Self-cleaning bars that actually "snap-out" dirt and mud.

✔ **Check** the longer bars—designed to give a bigger bite in sandy soil, cover crop—spread traction over a greater area.



✔ **Check** the angled bars—the scientifically measured angle that gives the best combination of traction and pulling power.

Your ***GILLETTE*** *Dealer will show you Super Power Bar's advantages—***see him today.**

A Bear for Wear

GILLETTE *Tires*

DIVISION OF UNITED STATES RUBBER COMPANY

One section of SATINA added to boiled starch overcomes "gluing-action." Your iron flies on wings.

No more iron sticking, dragging or scorching. And your SATINA-Ironed things smell sweet as summer!

Switch from slow-ironing to "SPEED-IRONING" When you buy starch buy SATINA, too!

- Clothes Stay Cleaner; Look Newer; Smell Fresher
- Costs Less Than 2¢ a Starching
- Easy Directions with Package

BURPEE'S "PRIZE" FLOWER SEEDS

50¢ VALUE—ONLY 10¢

Accept two 25¢ packages of 1951 prize winning Burpee's Flower Seeds . . . 1 Marigold; 1 Petunia, assorted colors—**PLUS** a full size package of SATINA . . . ALL for only 10¢! Mail coupon today.

SATINA, Dept. A4, Box 110, New York 46, N. Y.
I am not as yet a SATINA user. Enclosed find 10¢ coin for "TRIPLE-BARGAIN" FLOWER SEEDS-SATINA offer.

NAME _____

STREET _____

CITY _____ ZONE _____ STATE _____

Offer expires Sept. 30, 1952

30-minute meals

[*From page 46*]

Grilled Beef Dinner

Grilled Beef Patties With Savory Sauce

Serves 4

Combine 1 pound ground beef
½ cup cold water
½ teaspoon salt
few grains pepper
Mix well and form into patties.
Broil 3 inches from heat for 5 minutes.
Combine 3 tablespoons salad oil
1 teaspoon vinegar
2 tablespoons catsup
1 tablespoon prepared mustard
1 tablespoon Worcestershire sauce
few drops Tabasco sauce
1 teaspoon sugar
1 clove garlic, minced
Simmer for 10 minutes.
Spread over patties and broil on second side for 10 minutes.

Shoestring Potatoes Parmesan

Serves 4

Place in shallow pan
1 No. 2½ can shoestring potatoes
Sprinkle with
1 tablespoon Parmesan cheese
Heat.

Chive Cottage-cheese Salad

Serves 4

Divide into 4 servings
1 package (12 ounces) chive cottage cheese
Serve in mounds on lettuce leaves.

Green Beans in Mushroom Sauce

Serves 4

Combine 1 No. 2 can (2½ cups) cut green beans
1 10½- or 11-ounce can cream of mushroom soup
⅓ cup milk
Heat.

Peppermint Stick-Coconut Balls

Serves 4

Form balls with ice-cream scoop from
1 quart peppermint-stick ice cream
Roll in . . . 1½ cups shredded coconut
Return to freezing compartment of refrigerator, or serve at once.

Baked Fish Dinner

Spinach Delicious

Serves 6

Prepare as directed
2 4-ounce packages frozen spinach
Drain.
Add . . . . . 4 tablespoons butter
½ cup light cream
4 tablespoons horse-radish
1 teaspoon salt
¼ teaspoon pepper
Heat.

Made especially to cut away dirt that's packed into floor cracks; caked on to your cement floors; stuck to the stall sides. Long, stiff fibres that give a hard scrubbing action are made from African Bass . . . toughest, longest-wearing of all natural fibres. Sides are specially designed to help you clean out troughs and gutters—easier and faster.

Blocks—2 sizes: 14" and 16". Handles —54" or 60". Next time you're in town, buy Oxco's Civic—moderately priced, at your hardware or dairy equipment supplier and get a cleaner barn floor.

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OZ FIBRE BRUSH COMPANY, INC.
FOUNDED Established 1894 MARYLAND

PARTS FOR MILITARY TRUCKS

For Jeep, Dodge, Chev., GMC, Studebaker, 4 Wheel Drive and 6 Wheel Drive. Write for parts catalogue giving make of Truck.

NEW JEEP TOPS & CURTAINS

Complete top with back curtain and side curtains with snap-on doors, 5 windows. Waterproof O D Color, shipping weight 25 lbs. FOB, K. C. Only $59.50

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Here's Why . . .
Anacin® is like a doctor's prescription. That is, Anacin contains not one but a combination of medically proved active ingredients. Anacin is specially compounded to give FAST, LONG LASTING relief. Don't wait. Buy Anacin today.

Quick Baked Fish

Serves 6

Combine $\frac{1}{2}$ **cup milk**
2 teaspoons salt
Dip in milk
2 halibut steaks, $\frac{1}{2}$ inch thick
Coat with $1\frac{1}{2}$ **cups crushed corn flakes**
Place on greased baking sheet.
Melt . . . . **2 tablespoons butter**
Pour butter over fish.
Bake at 400° for 20 minutes.
Serve with **Tartare Sauce:**
Combine $\frac{1}{2}$ **cup mayonnaise**
1 tablespoon milk
3 tablespoons pickle relish
$\frac{1}{2}$ **teaspoon Worcestershire sauce**
$\frac{1}{2}$ **teaspoon onion juice**
1 teaspoon vinegar
Heat and serve over fish.

Almond Rice

Serves 6

Empty into saucepan
1 5-ounce package precooked rice
Add . . . . . $1\frac{1}{2}$ **cups water**
$\frac{3}{4}$ **teaspoon salt**
Bring to boil, uncovered.
Cover and remove from heat.
Let stand for 10 minutes.
Toast . . . . $\frac{1}{4}$ **cup slivered, blanched almonds** in
2 tablespoons butter until brown
Add almonds to rice before serving.

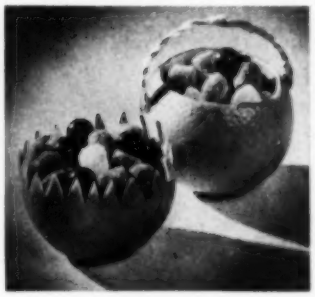
Peach Cream Dessert

Serves 6

Drain . . . **6 canned peach halves**
Put into hollow of each peach half **currant jelly**
Whip . . . $\frac{1}{2}$ **pint whipping cream**
Cover cut side of peach halves with whipped cream.

Orange baskets

Unique party favors that make a hit with young and old alike are fresh orange baskets. To make, cut top off each orange and carefully scoop out the pulp. Make a handle of colored cellophane ribbon for each basket. Fill baskets with candies and nuts. Try them for a May-day party. Orange baskets may also be filled with chilled fruit cocktail or sherbet. Cut a zigzag edge on the shell for a more attractive appearance.—*Mrs. J. R. Topol, Wisconsin.*



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Depending on what your electric or gas rate is, you can save from $20.00 to $40.00 a year on hot water and soap by washing with a Speed Queen (as against a cycle-type washer which uses a fresh supply of hot suds for EACH load). There are also likely savings on repair bills, because a Speed Queen has no complicated controls to require servicing. In addition, you can buy a Speed Queen for as much as $175.00 less than top-price washers. Surely these savings are worth investigating! See your Speed Queen dealer this week.

SPEED QUEEN CORPORATION
Ripon, Wisconsin

SPEED QUEEN

Vaccination and blood testing for BANG'S

Do we need both?

By Dr. J. W. Bailey

A dairyman recently wrote us and took us to task for advocating the blood test as a part of a program intended to wipe out Bang's disease. He said calfhood vaccination would do the job without help, and told of herds where this had been done. He pointed out that blood testing costs money, and stated that the results didn't generally interest people, anyway. As proof of this, he mentioned a sale at which less than a third of the buyers asked for test cards on the animals they purchased.

We'd hardly had time to read this letter before we picked up another one from a different owner who was against calfhood vaccination as an aid in eradicating Bang's disease. He stated that his entire township was certified free of the infection, and that the job had been done through test and slaughter, with no assist whatever from calfhood vaccination. He pointed out that starting it now would mean introducing infection that would probably cause reactions to the blood test. Such reactors couldn't be detected from those infected by actual field exposure. In short, he and his neighbors wanted no part of calfhood vaccination.

Well, letters like those give you some idea of the confusion regarding this business of eradicating Bang's disease. We personally feel that both blood testing and calfhood vaccination are needed for Bang's control, with local conditions deciding whether they shall be used singly or in combination.

Test and slaughter without calfhood vaccination may be the best bet in your certified dairy herd where there hasn't been any infection for years. Your neighbor may want to use calfhood vaccination without any blood testing at all in his beef animals. Or, another neighbor may want to do both in his slightly infected herd. Such a difference of opinion is perfectly natural, but it calls for a bit of explaining. For the sake of brevity, we'll use questions and answers.

Question: Will calfhood vaccination alone eradicate Bang's disease?

Answer: No, regardless of the many claims to the contrary.

Q. But doesn't vaccination give immunity to the disease?

A. No, for vaccinated animals frequently get Bang's disease.

Q. Then what does vaccination do?

A. It gives greatly increased resistance to Bang's disease, but this may break down in time or under continued heavy exposure.

Q. If that is true, why have many herd owners been able to establish clean herds through vaccination alone?

A. They didn't do it with vaccination alone. They were careful about adding diseased animals to the herd, and they gradually eliminated the number of infected animals in which resistance due to vaccination was decreasing.

Q. Does resistance really decrease in vaccinated animals?

A. Yes. This resistance is greatest for a year or two after vaccination and then slowly disappears with the passage of time.

Q. How long does the period of increased resistance last?

A. No one knows for sure, but it is generally believed somewhere between 3 and 5 years.

Q. If vaccination doesn't immunize animals, what advantage is there to the practice?

A. There are four principal benefits, since repeated experiments have shown that fewer vaccinated animals become infected with Bang's disease. As a result, such animals lost fewer calves, milked better, and were less subject to breeding troubles. In addition, they were less likely to become spreaders of infection in a herd, of course.

Q. Does vaccination have any disadvantages?

A. Yes, there are four of these, too: 1. It doesn't always prevent Bang's. 2. It can't be depended upon for lifelong protection. 3. Vaccinated animals may show persistent reactions to the blood test. 4. It must be combined with regular blood testing for the detection of carrier animals.

Q. Is the blood test accurate?

A. Yes, it is one of the most dependable known.

Q. Will regular blood testing alone eradicate Bang's disease?

A. Yes, if animals revealed as infected are promptly removed from the herd so they [*Turn to page 132*

MODERN AND STREAMLINED AS A JET PLANE!

The Great New "600 Series" Joins the Famous De Laval Separator Line

Here is a brand-new line of De Laval Cream Separators... which joins the famous De Laval World's Standard and Junior Series... to provide cream separator users with the utmost in clean skimming combined with the widest range of sizes, models and prices.

Consider these outstanding features... silent motor drive... no gears, no oiling. De Laval stainless steel super-skimming bowl... stainless steel supply can and covers... two-minute washing. Handsome, easy-to-care-for streamlined design... beautifully finished in black and silver-gray. Available in 3 sizes... motor drive only. See them today at your local De Laval Dealer's show room.

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Junior Series De Laval quality and performance at low price for small herd owners. Will pay for themselves in the saving of butterfat.

Electro Series Built for large farm dairies. Simple, efficient driving mechanism automatically lubricated. May be used for clarifying by adding clarifier bowl and tinware.

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TOWN _____ R. F. D. _____ STATE _____

"WHY PAY 50% MORE for home heat when COAL does the world's best job?"

That's right, Jim, you can't buy better heat than coal heat—no matter how much you pay! My son-in-law has a house just like ours. He heats with oil and I heat with *bituminous* coal, and last winter his fuel bill was nearly half again as much as mine.

On top of the money we save, we get the steady, even heat that *only* coal gives. The coal fire's always glowing—no "all-on" or "all-off" flame. The house gets warmed clear through and there are fewer "cold pockets." I think that's one reason our family has fewer colds.

I'm putting in my order for next winter's coal right now—enough to carry me right through all the cold weather. I'll have no worries about snow-blocked roads stopping fuel deliveries. And there's another advantage you get with coal—power failures caused by storms can't shut off the heat.

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1. Steadier warmth—no "on-again, off-again" flame!
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5. Lowest price almost everywhere!
6. America's vast reserves make supply dependable!
7. America's dependable supply assures price stability!

FOR ECONOMY AND DEPENDABILITY
YOU CAN COUNT ON COAL!

Bang's

[*From page 130*]

don't expose the other animals to Bang's disease.

Q. Why is this?
A. Because all Bang's germs come originally from diseased animals. Without diseased animals there will be no germs and no need for vaccination against them.

Q. Then why don't we blood-test and forget about vaccination?
A. Because disposal of reactors would put a great many owners out of business overnight, with no income and no money to go out and buy a new herd.

Q. Isn't it best to dispose of reactors when only a few animals are shown to be infected in a herd?
A. Usually, yes, but this doesn't always hold true.

Q. Why?
A. Because of the so-called incubation stage which the disease requires for development following exposure of animals.

Q. How does this make any difference?
A. Removal of a single reacting animal would establish a clean herd if none of the others were in the "incubation stage" and incapable of reacting to the test as suspects. Any that were in this stage would show up in later tests even though the reactor had been promptly removed. By that time, these animals would have had a chance to expose others which might be in the "incubation stage" and would come down with the disease later. This sort of thing might go on for months and eventually wipe out an entire herd, even though only a few reactors were shown by any one test.

Q. What benefit can be expected from blood testing, then?
A. It will show up animals that are infected at the time of testing.

Q. What good will that do?
A. Such animals can be isolated from other animals before they have had much chance to spread the disease.

Q. Is this practical?
A. Yes, a great many farms maintain two separate groups of cattle in order to speed up the eradication of Bang's. Sometimes the two are housed in opposite ends of the same barn while being turned out in separate lots and pastures.

Q. Is regular blood testing continued under such a plan?
A. It is necessary in the clean unit in order to detect possible outbreaks. Reacting animals are promptly transferred to the other herd.

Q. Are infected animals retested?
A. Usually not, but they may be checked once a year to show up any that have a tendency to regain a negative status.

Q. Is it possible for reacting cows to do this?
A. Yes, although such cases are not numerous when true reactors are involved. Since recovery of these animals is a slow process, once-a-year testing is enough for them. The situation is a little

different in the case of reacting animals that react to a lesser degree and are "suspects" instead of true reactors.

Q. Why?

A. Because recoveries from "suspect" status are frequent and may occur in 30 days' time. Animals may also become worse in the same length of time and develop into full-fledged reactors, or they may remain unchanged. So, 30-day retests are desirable for such animals.

Q. Why mention all these different angles of blood testing?

A. To emphasize the various ways in which it is needed to help eradicate Bang's disease.

Q. Would vaccination be needed when regular testing was done and reacting animals were kept on the farm completely isolated from the clean ones?

A. Yes, for germs might be carried by dogs, pigeons, sparrows, and even on the shoes of people after visits to the infected unit. Vaccination would give insurance against such exposure. Also, clean herds are low in resistance.

Q. When is it inadvisable to vaccinate calves and do regular blood testing in the same herd?

A. When owners are unwilling to risk occasional animals that fail to regain negative status after vaccination. At the present time there is no way of telling vaccination reactions from those due to actual exposure to Bang's disease.

Q. Don't owners run a risk by failing to vaccinate?

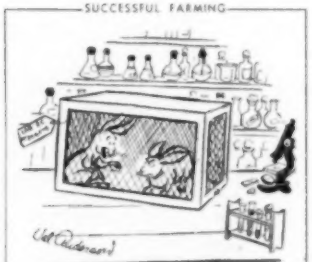
A. Yes, for unvaccinated clean herds have no resistance of any kind to Bang's disease. Accordingly, their owners are placed in the position of sitting on a powder keg without knowing when an accidental spark of infection will cause a blowup that will wipe out their whole investment in a herd.

Q. Aside from keeping track of infection in the home herd, does blood testing have any other use in a Bang's-control program?

A. Yes, indeed. It helps owners select cattle which are free of infection at sale time. This is important, for the movement of diseased animals still rates as the main source from which Bang's is spread around the country.

[*Turn to page 134*

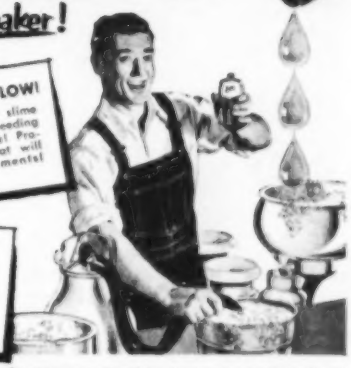
SUCCESSFUL FARMING



"... and after that I had influenza ... but that was nothing compared to my case of typhoid! Let me tell you ..."

CLEANS DAIRY EQUIPMENT TWICE AS FAST AS SOAP POWDERS ... SAVES UP TO ½ THE COST in hardest water!

JOY Procter & Gamble's Miracle Concentrated Liquid Sudsmaker!



KEEPS BACTERIA COUNT LOW!
JOY washes away all milk slime and grease—discourages breeding places for harmful bacteria! Promotes a bacteria count that will pass any State's requirements!

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No soap flakes, granules, or powders in the world can match JOY's ability to keep milkstone from forming. And remember—just this milkstone can rob you of 1/5 of the valuable butterfat you deserve!

Already *dissolved* — gives *instant* suds! ... No caking as with packaged soaps! ... No mess when you splash, no more soggy soap cartons to fall apart! No spilled powders to clean up afterwards! ... No waste from guesswork, because every drop is measured accurately!

Yes, here's the newest way to clean cream separators, milking machines, cans, pails, and strainers *cleaner, faster, more economically* than soap powders in hardest water!

CLEAN DAIRY EQUIPMENT THE JOY WAY!

Cleaning Milking Machines – After each milking, flush unit with 1 pail of hot Joy solution. Use 2 capfuls of Joy to a pail of water.

When all Joy solution is drawn into milk pail, remove rubber seal from pail head and wash seal and pail head in suds with a soft bottle brush. Then brush outside of unit with Joy suds. Shake solution around inside milk pail to complete washing; then empty pail.

Reassemble unit and flush-rinse with very hot water. Then hang milk pail, pail head, and teat cups up to dry. Just before next milking, flush out milker with clear, hot water.

Cleaning Cans, Pails, Strainers – wash in hot Joy solution with soft brush. Use 1-2 capfuls of Joy to a pail of water.

Rinse with very hot water, allow to drain dry. Everything will be spotlessly clean.

Remember, too! JOY MAKES YOUR DISHES GO FROM GREASE TO SHINE IN HALF THE TIME!

"American Fence spans two lifetimes in our family,"

—says John Holtkamp, West Point, Iowa.

6 favorite features of American Fence

1. Long Life Wires
2. Hinged Joint
3. Tension Curve
4. Full Gauge Wires
5. Correct Spacing of Wires
6. Full Length and Height

● "My father used American Fence with such good results that I have continued to use it all my life," says Mr. John Holtkamp of West Point, Iowa. "We have miles and miles of American Fence on our 600-acre farm. It's the only kind I use. One stretch has been in constant service for over 40 years and it's still tight and strong. I believe the reason for this is the rust resisting wire and the solid construction of the steel corner posts."

Mr. Holtkamp specializes on Registered Angus cattle and sells about 100 head a year. He raises most of his own feed and averages about 70 to 80 bushels of corn to the acre.

The Holtkamp farm has an efficient fence layout that saves hours of work daily and requires very little repair work. "In fact," says Mr. Holtkamp, "with my boy in the army, I don't know how I'd get the work done without good fence."

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Snap-on Tools
THE CHOICE OF BETTER MECHANICS

Bang's

[*From page 133*]

Q. What about the buyers who aren't interested enough to ask for a test card on their purchases?

A. Most of them are satisfied by knowing the cards are available, and wouldn't buy cattle without them. The others are in the minority.

Q. Does blood testing at sale time do any good?

A. We believe it does, or there wouldn't be so many states requiring it as a means of preventing the shipment or importation of Bang's-infected cattle.

Q. But don't some states permit the movement of vaccinated animals without a blood test?

A. Yes, but usually only for a year or two following vaccination when resistance is at its peak and infection is unlikely. As resistance dwindles, most states are unwilling to gamble on untested vaccinated animals, and some require that vaccinated and nonvaccinated animals pass a clean blood test before they are moved.

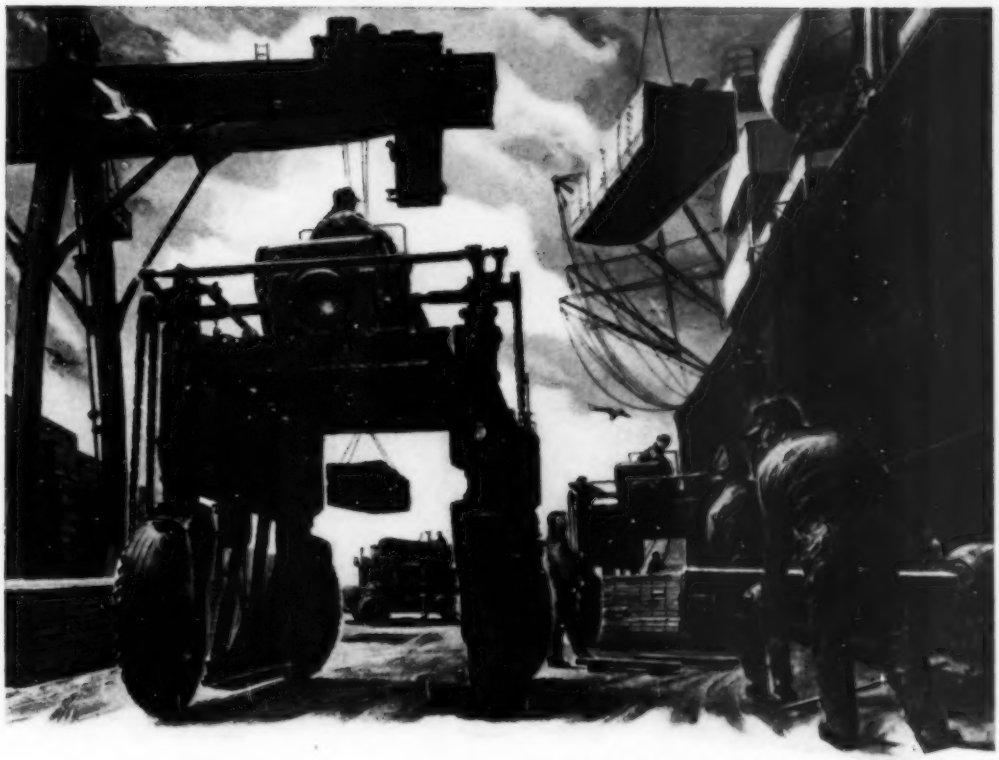
We can't say what program owners should follow, for circumstances vary greatly in different sections, and no one plan is effective and practical in all cases. That's why we're convinced that we need both calfhood vaccination and blood testing for wiping out Bang's disease on a national scale. At best, all owners are given their choice of three methods, for the measures can be used alone or in combination. One thing is sure: After years of procrastination and delay, we've finally reached the point where we have to do something besides argue. **END**

Why you say it!

During many centuries, English farmers treated their horses almost like members of the family. In many cases, they placed fresh flowers in the harness every morning. And every animal had a name.

As in the case of human names, there were a few which were especially popular. More than half the plow horses of Britain were called Robin, Dobbin, or Hobin. Slightly modified when applied to a child's toy animal, the last name became *hobby*.

Any youngster, given a hobby for Christmas or birthday, was likely to ride it with great enthusiasm. He spent about as much time upon his wooden nag as noblemen devoted to favorite sports. So by the time of Sir Walter Scott, *hobby* was being used to stand for any nonprofit pastime.—*Boyd G. Wood.*



A "draft" of timbers being lowered to the J. C. Turner Lumber Company's Hudson River dock at Irvington, N.Y. Motor carriers make it possible to move lumber shipments five times as rapidly as with muscle-power.

Where it's always

MOVING DAY

A big lumber dealer sells material plus motion ... helped by an "Unseen Friend."

WATCH a steamer discharge millions of feet of West Coast fir and hemlock. As soon as a load of lumber is lowered to the dock, it is helped rapidly along its way by "Your Unseen Friend," Nickel.

See how quickly one of the big "lumber luggers" jumps into action. It straddles the pile of timbers, clamps them in its steel arms, and whirls them away to a station beneath one of the tall cranes. In a few seconds, the craneman stacks the timbers for a temporary stop before their final shipment to retail lumberyards or to jobs under construction.

The tall, gangling straddlers seem to scramble all over the yard, with their five- to seven-ton loads. And they do, often at 45-mile speed! That means *move*.

How rugged they must be, to lift such heavy loads in their metal arms. (Nickel toughens the frames and cross shafts.) What sinewy motors are needed to whisk those long-legged trucks on their nimble errands. (Nickel provides stamina in stressed parts, in drive shaft, universal joints, gears and pinions.)

Lumberyards, shipyards, defense plants . . . there's Nickel practically everywhere important work is being done. You seldom see it because it is usually intermixed with other metals to make them longer lasting, stronger, or resistant to corrosion. That is why Nickel is called "Your Unseen Friend."

For the Inquiring Mind: *Where does Nickel come from—who made this friendly metal useful, valuable? How is it possible to raise tons of ore thousands of feet and produce Nickel for your ever expanding world of wonders?*

This romance of men, mines, and machines, of developing resources, is in your free copy of "The Romance of Nickel." Write, The International Nickel Co., Inc., Dept. 625a, New York 5, N.Y.

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The INTERNATIONAL NICKEL COMPANY, Inc.

INCO **Nickel** ... Your Unseen Friend

WHEN WATER LEVEL DROPS...

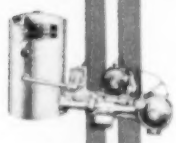
This MYERS Water System goes after it!

another reason why
More Buyers Buy Myers

For only a few dollars this Myers "HN" *Ejecto* water system can be changed from a shallow well (20 foot maximum) to a deep well system. One simple connection puts into operation a device that allows the Myers "HN" *Ejecto* pump to bring water up from as deep as 120 feet . . . and deliver it under steady pressure.

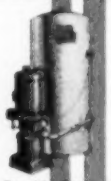
This means the water table on your farm can fluctuate as much as 100 feet without your having to worry about your water supply *or* a new water system. You can also move your Myers "HN" *Ejecto* from one place to another even though conditions differ.

Talk your water problems over with your Myers dealer. Let him protect you against short-term drouths and long-term declining water tables. He'll recommend the right Myers water system for your conditions.



Myers Bulldozer Shallow Well System. Capacities of 500 and 1000 gallons per hour.

Myers self-oiling deep well system. Double main gears distribute power load evenly, eliminate side thrusts and binding strain for smooth, quiet operation.



Myers Deeplift Ejector. Operates in wells of [illegible] to [illegible] feet. Completely automatic. No lubrication required. No gears, belts, pulleys, cylinders or rods to require service.

Fully Automatic Water Softener

Just push a button and you can have 100% soft, conditioned water for better, easier laundering, to better dissolve fungicide, insecticide or weed killer materials.

Cuts costs in soap, fabrics, and plumbing repairs in the home. Saves $125 a year for the average family on soap, discovers, wear and tear on clothing, etc. clean. New, no-fire-hose can that make and save money are being added every year. Get the best—a Myers built-for-a-lifetime Softmaster.

MYERS SOFTMASTER

TAKE OUR TOUR MAY 10
MYERS
PUMPS WATER SYSTEMS STOVES WAX TOOLS

THE F. E. MYERS & BRO. CO.
103 Orange St., Ashland, Ohio

Send catalogs as checked and dealer's name:
☐ Water Systems ☐ Water Softeners

My Name _____
Town _____
County _____ State _____

Give your child a chance with a garden

Every child should have a garden all his own. Children like digging in the earth and living close to nature. Even the toddler, before he is big enough to know anything about growing plants, likes the feel of the dirt through his little fingers. Children will play in dirt for hours making mud pies or building castles.

The child from 4 to 10 or even older who plants and tends a garden plot of his own gains in self-reliance, independence, knowledge, and perseverance. He gets the feeling of doing something constructive and worthwhile. These are moral values that enrich your child's life. In addition, it's fun to be a gardener!

Are you sold on the idea? It's a must to have you, the parent, completely in favor of the gardening plan. *But let your child rule his kingdom!* Let him do with it as he sees fit. It is fine to advise and guide the child, but don't make the mistake of taking the pleasure out of his garden by becoming head gardener yourself!

What to grow *is your child's problem*, not yours. However, the final choice and actual purchase of the seeds probably will require your assistance. A seed budget could be set up, limiting the amount of money to be spent.

A plot 6x9 feet is large enough for any child. If the garden is too large, he can't tend it properly and he'll lose enthusiasm for it.

If there is more than one child old enough to garden, give each child his own plot. Teach him to prepare the ground, plant the seeds, do the weeding, and water his garden. Respect his land holdings as you do your own.

The small child will let his imagination have sway. It will be a farm to him, especially if his dad is a farmer. He'll play he is planting and tending his crops. Thus his garden will receive better care. True, he probably will have a crop of onions and weeds, radishes, beans, marigolds, zinnias, toads, caterpillars, odd-shaped rocks that jingle in his pocket, and dreams galore.

Many older children can develop gardens close to equaling your own. But no matter the age of the child, gardening helps build character and knowledge. It offers a good chance to teach simple facts about fertilization and reproduction when the children are planting the seeds and waiting for them to grow.

A child needs the right tools to tend his garden. At most department and hardware stores, tools just the right size can be purchased at reasonable prices. Don't buy too many different kinds of tools. A rake, hoe, shovel, trowel, and watering can should be enough.

Now that the child has his own tools, teach him the proper respect for them

Children respond to the beauty of growing things, and you'll discover that more than weeds grows in a youngster's garden

and how to care for them. Teach him to clean them and put them away after using them—and that carelessness can cause accidents. For instance, if a rake is left on the ground with the teeth sticking up, he could trip and fall on it, hurting himself. Also, set an example by caring for your own tools properly.

Help him study the insects and weeds as he fights them. Teach him the relationship between rain, sun, and his garden. And take him to a flower show or your county fair where he can see what others are doing.

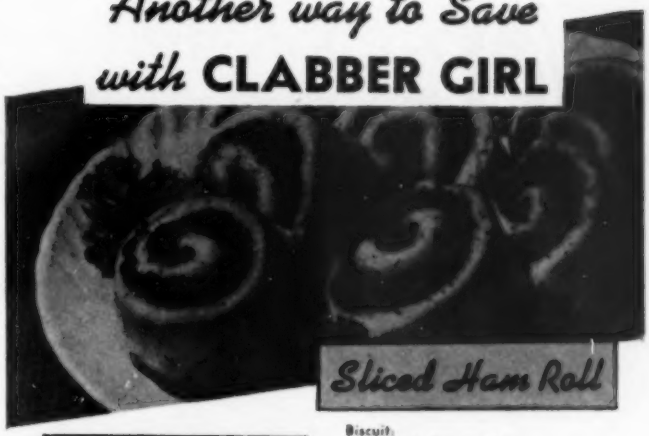
When a bit of his garden reaches the table, it should be praised. This gives him family prestige—a thing young children crave. He will be proud to have raised enough for himself and something to share with the family. Perhaps you could offer to pay for a bunch of carrots or radishes. This would offer incentive to take good care of the garden crops. If your child grows flowers, let him give some of them away.

So let your child have a garden all his own, even though his first attempts may not be so successful. Help him and give advice when he asks for it, but let him go ahead on his own. At the end of the summer your little gardener will be able to point with pride to his very own work. And you'll be a much wiser parent!

When in doubt

"When in doubt, don't" is a good guide if you're undecided about wearing two or three pieces of jewelry with your costume. That is, unless you want to look like a Christmas tree! Another tip: Keep your jewelry in harmony. Separate gold and silver pieces don't mix well. Matched earrings, necklace, and bracelet are lovely if you can afford them. But if your jewelry isn't companionable, better give the spotlight to one piece at a time.

Another way to Save with **CLABBER GIRL**



Here is a novel and economical way to stretch left-over ham into a lunch or dinner main dish . . . a real taste treat and so easy to prepare . . . Notice how Clabber Girl gives leavening that is 'just right' even when coarsening caraway seeds are used to spark up the flavor.

Biscuit:
2 cups sifted all-purpose flour
2½ teaspoons Clabber Girl Baking Powder
½ teaspoon salt
1½ teaspoons caraway seed
6 tablespoons shortening
¾ cup milk

Ham Filling:
2 cups cooked, ground ham
¼ cup pickle relish
1 tablespoon prepared mustard
¼ cup gravy or brown cream sauce

BISCUIT: Sift together flour, baking powder and salt. Mix in caraway seed. Cut in shortening until mixture resembles coarse corn meal. Add milk; stir to make a soft dough that can be handled and formed into a ball. Transfer ball of dough onto a lightly floured board; knead until smooth. Roll out into a 9x12-inch rectangle. Spread with ham filling. Starting with the narrow end, roll like a jelly roll. Place on a greased baking sheet. Brush lightly with milk. Slash roll into six pieces cutting almost through roll. Turn each piece cut-side up. Bake in a hot oven (450°F.) approximately 25 minutes or until well browned. Serve with mushroom sauce.

HAM FILLING: Mix all ingredients together thoroughly. Serves six.

Every day, more and more home-bakers are learning to bake the sure, positive Clabber Girl Way.

Guaranteed by Good Housekeeping

CLABBER GIRL
IS NOW *Exclusively* KNOWN AS THE BAKING POWDER WITH THE *Balanced* DOUBLE ACTION

HULMAN & COMPANY, TERRE HAUTE, INDIANA

Keep *Successful Farming* coming your way. Each month in *Successful Farming*, you will find the kind of information that will help you increase your profits, make your farm work more convenient, and your farm living more comfortable.

No. 1 livestock magazine in its field, Successful Farming leads all major farm magazines in editorial pages devoted to livestock.

IMPORTED DANISH PLAQUETTS

☆ There's a bit of Denmark, itself in these genuine Royal Copenhagen Danish Blue Plaquette, so attractive when traditionally hung, or when used as ashtrays, coasters or butter pats. 3¼" diameter, pierced for hanging. 27 Designs now available, only 1.00 each, ppd. Money back guar. No. C.O.D's please. FREE Folder shows all designs. GIFT CATALOG shows other Royal Copenhagen pieces, sent free with order, or send 25c (refund with purchase).

HOUSE OF CHARM
3135 Market St., Dept. SF-1, Riverside, California

DAY-n-NIGHT
MAILBOX MARKERS

Reflector lettering—glass beads mirror light at night (like road signs)
Permanent embossed letters and numbers 1½" high
Lifetime aluminum—rustproof
Baked enamel—white beaded letters—black background
Double plate 18" long—reads the same from either side

These attractive markers make thoughtful gifts — and make it easy for friends to find your home DAY-n-NIGHT. Install in a minute. Any wording you want, up to a total of 15 letters and numbers. PLEASE PRINT CLEARLY.

C.O.D. if desired—Extra postage added. Canadian orders add 25% extra.

Quantity discounts to clubs, church groups, etc., for resale. Write for details.

MAILBOX MARKER
Size as shown above

$1.95 POSTPAID

Spear ENGINEERING COMPANY
856 Sonar Bldg., Colorado Springs, Colo.

SATISFACTION GUARANTEED OR MONEY BACK

over-heard

(in the dormitory)

Jeanne: Same old story as last month. The party comes at the wrong time for me. I would be thinking about it every minute—afraid people would notice . . .

Deborah: Don't be that way. Wear Tampax this time. I heard about it from Emily. It's perfect. You forget everything! You can't even feel the Tampax!

Jeanne: That sounds wonderful. Are you *sure* about it?

Deborah: You ought to hear Emily rave. She knows the whole story of Tampax. How a doctor invented it—scientific principles, you know . . . *worn internally, my dear* . . . millions of women use it.

Jeanne: All right, I'm sold. I'll get some Tampax right away. See you at the party!

Tampax requires no belts, pins or supports of any kind. No external pads—no bulges or ridges for anyone to observe. No chafing or odor. Easy disposal . . . Tampax is made of pure surgical cotton contained in slender disposable applicators. Full month's supply fits into purse. Economy size lasts 4 months (average). Sold at drug and notion counters in 3 absorbencies: Regular, Super, Junior. . . . Tampax Incorporated, Palmer, Mass.

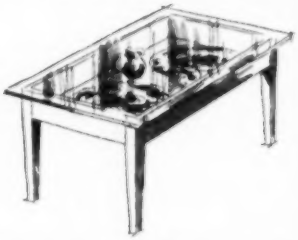
Accepted for Advertising by the Journal of the American Medical Association

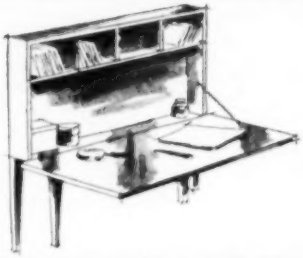
Revival of an

old piano bench

The discarded piano bench roosting in your attic has a great future, if you'll give it a little of your time. Here are some of the possibilities it offers

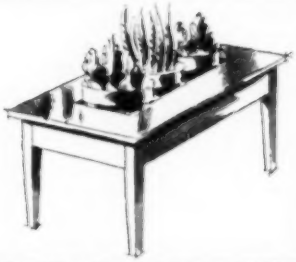
Coffee table: Remove lid and replace it with ¼" plate glass cut the same size. Cut legs to 18" height. Arrange a few attractive knick-knacks under the glass for unusual decoration





Kitchen desk: Remove legs and replace them on hinged side of top compartment. Add a small shelf or pigeon-holes inside top for pencils, paper. Add a chain on the inside to hold lid at desk level, and a catch at top to hold it closed when shut

Plant stand: Cut out center section of lid with coping saw. Cut large enough section to hold potted plants. Use table at windows as a plant stand, or cut the legs to 18" height and use it as a coffee table



Children's desk: Remove lid. For sloping top, saw ends down from back to 1" above legs at front. Cut the front of frame straight across, 1" above legs. Replace hinged lid. **END**

You'll build or remodel better with Gold Bond

Gold Bond Farm Bulletin

WEATHER
Ideal for adding extra rooms your family needs!

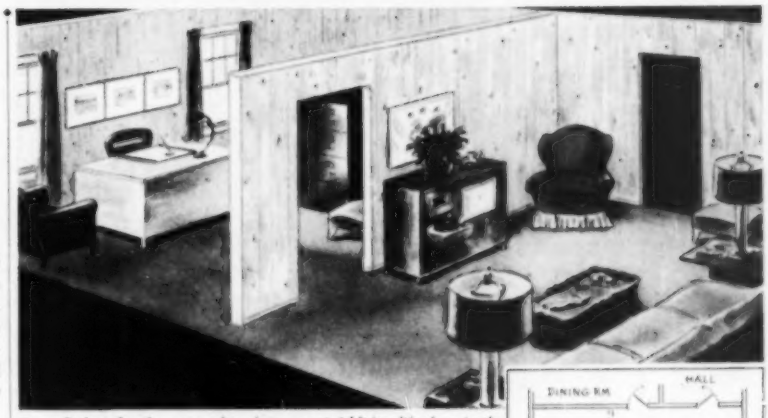
Published by NATIONAL GYPSUM COMPANY, Buffalo 2, New York

MAKE TWO NEW ROOMS FROM ONE OLD PARLOR!

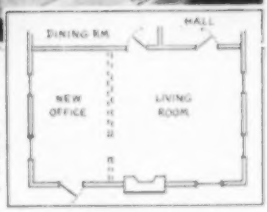
Make the "parlor" livable...add an office, too...with low-cost Gold Bond Grainboard

A lot of pleasant, useful hours are waiting for you in your new family living room. You'll find it a cheerful room for entertaining, or just relaxing and watching TV. And that private office will really please Dad.

It's surprising how little it costs, and how easy it is to make a new living room out of the parlor—the Gold Bond way! See the pictures below. Your nearest Gold Bond Lumber and Building Materials Dealer will help you every step of the way.



Once a little used parlor, now two brand new rooms! Additions like these give the whole family a thrill, and it's simple when you use Gold Bond Building Products.



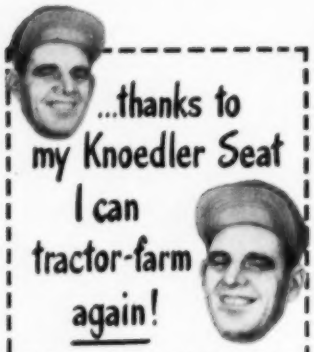
He has over 150 Gold Bond Building Products including Gypsum Grainboard and standard ivory-colored board. Also, fireproof Rock Wool in handy batts and blankets for insulating the attics of old homes and farm buildings. If you're adding a wing to the house, save money by using fireproof Gold Bond Gypsum Sheathing instead of old style inflammable wood sheathing.

CHECK THIS LIST OF ROOMS YOU CAN ADD...WITH GOLD BOND BUILDING PRODUCTS

- ☐ An Extra Bedroom
- ☐ An Extra Living Room
- ☐ A Television Room
- ☐ A Summer Kitchen Space
- ☐ A Den
- ☐ A Sewing Room
- ☐ A Recreation Room
- ☐ A Wash-Up Room
- ☐ A Utility Room
- ☐ A Hobby Room
- ☐ A Breakfast Room
- ☐ An Extra Bathroom

Look for the famous orange and tan striped label on all Gold Bond Building Products! Fireproof Wallboard, Decorative Insulation Boards, Lath, Plaster, Lime, Sheathing, Wall Paint, Textures, Rock Wool Insulation, Metal Lath and Sound Control Products.

ADD-A-ROOM NOW! with Gold Bond



...thanks to my Knoedler Seat I can tractor-farm again!

"I had an inward rupture, yet I get an easy, comfortable ride out of my Knoedler Seat . . . it cuts out all those painful jars and bounces. I'd say it's a must for any man with a physical disability!" says V. W. Dankenbring, Box 257, St. Francis, Kansas.

Universal Model with tool boxes

The genuine Health-Saving Knoedler Seat's spring-hydraulic comfort floats you over the roughest ground. Instant adjustment "fits" the ride to your weight and field conditions. Universal Model available with "sliding adjustment."

Low-Clearance Model has "tilt-back" feature and furrow-leveling adjustment. Both take pan seat, easily installed on most tractors.

Models as low as $26.20 (F.O.B. Streator. Prices subject to change without notice.)

Knoedler FARM TESTED PRODUCTS

Spring-Hydraulic Tractor and Implement Seats • Air Conditioned Pan Seat Cushions • Ball Bearing Spinners • Mor Tractor Platforms • Bruning Hydraulic Couplers • Front End Hitches • Cornbelt Burr Mills • Corn Picker Safety Reverse Gears • Delco Crop-Drier Fans.

Send for free catalog

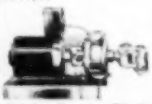
KNOEDLER MANUFACTURERS, INC.
DEPT. 102 STREATOR, ILL.

I VOTE FOR BURKS SUPER TURBINE WATER SYSTEMS

BURKS Pumps More Water Lasts Years Longer

Fresh water and lots of it for milk, eggs and meat—plus city type water service in the home. That's what BURKS super turbine Farm Water Systems provide.

The only systems with Life-Lok. Fully automatic—self priming—finest engineered water systems. Write for FREE Book, "Story of BURKS."



DECATUR PUMP CO., 30 Elk St., Decatur 70, Ill.

How to

measure your windows

for draperies and curtains

Correct measurements, ready to take to the store, are a *must* unless you want to suffer the ordeal of too little or too much material for the job

The most important and probably the most frequently forgotten step in curtaining a window is accurate measuring. The result of no measurements or inaccurate ones is wasted dollars and cents!

Whether you plan to use tailored curtains, ruffled curtains, or draperies, there are three proper lengths at which they may be hung: (1) sill length, (2) apron length, and (3) floor length.

Sill or apron lengths generally are used in informal living and dining rooms and in most bedrooms. If you want ruffled curtains, you'll find the apron-length ones will drape more satisfactorily than do those of sill length. Floor-length draperies are more formal than either of the others and will add height to a room. They should be avoided in a small room with high ceilings and should not be used for long, narrow windows which are out of proportion to the rest of the room.

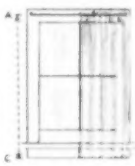
How to measure window widths. To measure your windows for width, *always* measure the length of the rod as it will be hung. If you are buying new rods, mark lightly where they will be placed on the frame and measure between these markings, eliminating all guesswork.

A pair of curtains should measure at least twice the width of the rod in order to give nice fullness. For instance, if the rod is 34 inches long, each of the two panels should be at least 34 inches wide, making a total curtain width of 68 inches. The exception to this is the crisscross curtain,

[*Turn to page 142*

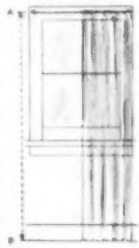
Sill length

Measure from the top of the rod (a) to sill (b). Add 2 inches for heading so it will stand above the rod



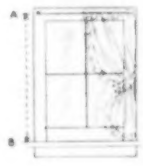
Apron length

Measure from the top of the rod (a) to apron (c). Add 2 inches for heading to stand above the rod



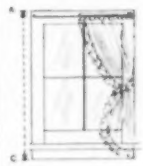
Floor length

Measure from top of rod (a) to floor. Add 3 inches for crinoline to stiffen top of curtain above the rod



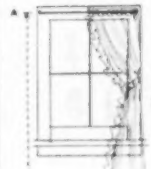
Sill length

Measure from top of rod (a) to sill (b). Add 1 inch to top and $1\frac{1}{2}$ inches for the take-up in the draping



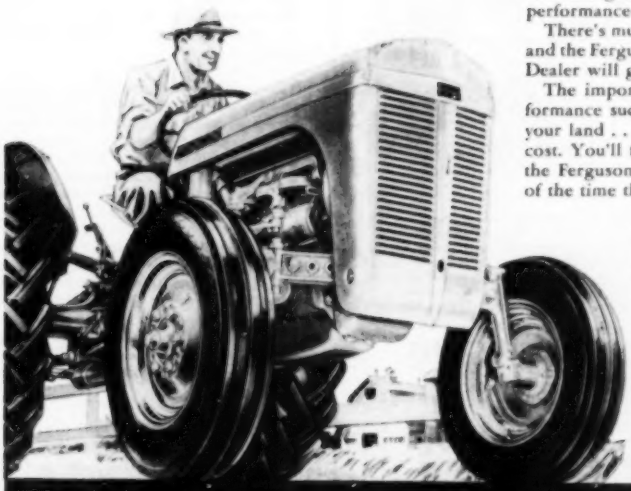
Apron length

Measure from top of rod (a) to apron (c). Add 1 inch for the heading and $1\frac{1}{2}$ inches for the draping



Floor length

Measure from top of rod (a) to floor. Add 1 inch for the heading, $1\frac{1}{2}$ inches for the take-up in the draping



Ferguson's mighty valve-in-head engine, with the most remarkable torque characteristic of all, gives you enormous lugging ability. This power, working with the genuine Ferguson System, gives unexcelled performance that only the Ferguson "30" can offer.

There's much more to the story of Ferguson Power and the Ferguson System, of course, and any Ferguson Dealer will gladly give you all of the details.

The important thing to be said here is that performance such as this permits you to farm more of your land . . . easier, more intensively and at lower cost. You'll find, as have thousands of owners, that the Ferguson "30" meets more of your needs *more* of the time than any other tractor.

GET "SHOWDOWN" PROOF

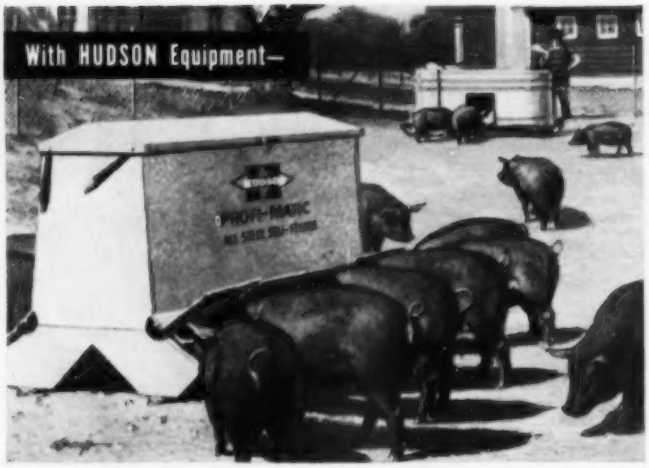
Call your Ferguson Dealer today and arrange for a "Showdown" demonstration right on your own farm. Then compare Ferguson all-around performance with that of any other tractor.

★

Ask your Ferguson Dealer for a copy of "The Axe and the Wrench" . . . a simple explanation of torque. Or write to Harry Ferguson, Inc., Detroit 32, Michigan.

Copyright 1952 by Harry Ferguson, Inc.

Meets MORE of the needs of MORE of the farmers MORE of the time!



PRODUCE 100 LBS. OF PORK IN 1 HOUR OF FEEDING TIME INSTEAD OF 3

Cut Feed Costs 25% while putting on 20% more pork*

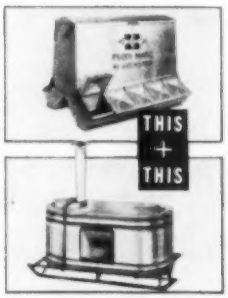
Well, let's look at the facts: Studies by a leading university† show that with *hand*-feeding and watering it takes an average of 3 hours of man labor to put on 100 pounds of pork . . . and with *self*-feeding and watering many farmers are doing the same job in ONE hour.

U.S.D. of A. says* that self-fed hogs put on 20% *more pork* with 25% *less feed*. Only with feed and water available 24 hours a day will hogs put on maximum gain. Self-feeding gets your hogs to market earlier for higher prices—while saving you time, work, and money.

And here's what it takes to do the job!

Check these Hudson All-Steel Self-Feeder features:

1. Super-Strong heavy gauge galvanized steel construction, fully top and corner-braced, with extra-heavy doors your hogs can't crush. **2.** Sloping Sides—handle even ground feeds without clogging. **3.** Rain and snow-proof doors keep moisture out. **4.** Individual feed-flow regulators can be controlled from outside with hopper full or empty. **5.** Separate compartments for different feeds. **6.** Sizes: 4, 6, 10 and 14 door; 10, 15, 25, 35 bushels.



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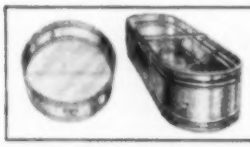

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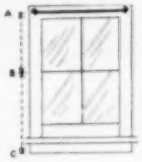
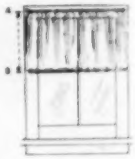
Measure your windows for draperies, curtains

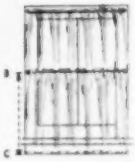
[*From page 140*]



1. Sash rod is put on window at (b)



2. Top tier falls from (a) to (b)



3. Lower tier falls from (b) to (c)

For the top half of the tier curtains, measure from the top of the rod (a) to 2 inches below the sash rod (b); add 1 inch for heading, ½ inch for narrow rolled hem

For the second tier, measure from the sash rod (b) to apron (c), and add 1 inch for the heading and 2 inches for a deeper hem to give additional weight to panel

which should be *four times* the width of the rod because of the sheer material used in this type of curtain.

When draperies are to be hung on traverse rods, figure on enough material for double width to insure fullness when the draperies are drawn together.

Tailored casement curtains and draperies. Use the method illustrated in the diagram on page 140 to measure for length of both casement curtains and draperies, regardless of whether they are used inside the casement or placed on the frame. These drawings show the procedures for measuring each of the three accepted lengths.

The tieback curtain, whether ruffled, plain, or crisscrossed, presents a different problem, since the tieback raises the lower corner of the curtain. So an extra 1½ inches should be added to the window length for this. The diagrams on page 140 show you the exact points to measure for each of the various lengths.

Tier curtains or cottage curtains are double hung at the window. If you're planning to use this clever treatment, hang a sash rod at the middle window divider. Measure this rod and the one at the top of the window for width, doubling if you wish to draw the curtains together. The drawings show how to measure the length of each tier.

Ready-made curtains and draperies should be purchased 2 inches longer than your measurements require; this is to allow for shrinkage in laundering and dry cleaning. This extra material can be taken up with a tuck in the hem of the curtain until after the first laundering. However, if the labels guarantee that the fabric has been preshrunk, the extra 2 inches are not necessary. END

Do you know which president?

Everyone knows that George Washington was the first president of the United States, but can you select the proper president for the following classifications? (Answers below.)

1. Which of these was the first president to be elected for a third term: Grover Cleveland, Franklin D. Roosevelt, James A. Garfield?

2. Which of these was the first president to be re-elected after having been defeated for re-election at the previous election: Theodore Roosevelt, James Madison, Grover Cleveland?

3. Which of these was the first mining engineer to become president: Harry S. Truman, Herbert C. Hoover, Andrew Jackson?

4. Which of these was the first man of the "common people" to become president: Andrew Johnson, Rutherford B. Hayes, Andrew Jackson?

5. Which of these was the first president to receive the Nobel Peace Prize: Woodrow Wilson, Theodore Roosevelt, Warren G. Harding?

6. Which of these was the first vice-president to become president automatically: John Quincy Adams, John Tyler, Theodore Roosevelt?

7. Which was the first son of a president to become president: Benjamin Harrison, James Buchanan, John Quincy Adams?

8. Which was the first grandson of a president to become president: John Quincy Adams, Benjamin Harrison, James Monroe?

9. Which was the first president to be chief justice of the United States Supreme Court: Woodrow Wilson, William Howard Taft, Ulysses S. Grant?

10. Which was the first president to be assassinated: James A. Garfield, Abraham Lincoln, William McKinley?

Answers: 1. Franklin D. Roosevelt; 2. Grover Cleveland; 3. Herbert C. Hoover; 4. Andrew Jackson; 5. Theodore Roosevelt; 6. John Tyler; 7. John Quincy Adams; 8. Benjamin Harrison; 9. William Howard Taft; 10. Abraham Lincoln.

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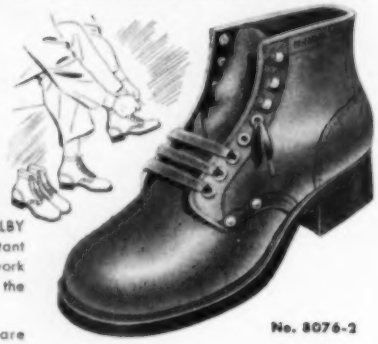

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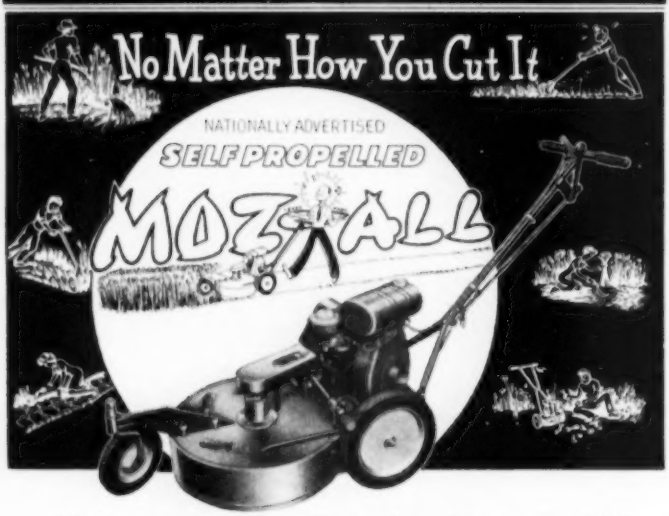

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Dairy

Trench silo saved hay crop

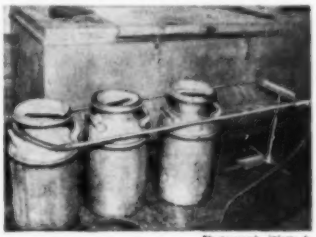
Forced by bad hay weather last June, dairymen Eric and Ed Aspness, Dane County, Wisconsin, took a gamble and put their entire 53-acre hay crop into a hillside trench silo. The gamble paid off. They report an abundance of high-quality grass silage for their 24-cow dairy herd.

A secret of the Aspness brothers' success was heavy packing at filling time, according to University of Wisconsin extension men who inspected the silo. A dump truck used for hauling kept running over the chopped hay. A heavy tractor was also used to help pack it down.

The trench silo was built into the side of a hill. Drainage is good, and there is easy access to one end. The pit is big, measuring 100 feet in length, 12 feet deep, and 15 feet wide, with a capacity of about 400 tons.

Handy, homemade milk cooler

This milk cooler (pictured below), made in the farm shop of Howard D. Fountain, Johnson County, Iowa, handles four 10-gallon milk cans. Two lengths of small-diameter iron pipe, with spray holes drilled at 2-inch intervals, were mounted on a bracket to hold up one end. The opposite end is formed by the rubber hose connecting the pipes.



Photograph: Wettach

The metal stand or bracket has a hand screw to allow the height to be varied. One side of the cooler is connected to a hose from the hydrant in the milkhouse. This homemade cooler is used to supplement the cooler shown in the background. —*A. M. W., Iowa.*

Feeding dairy-plant by-products

Recent University of Wisconsin tests using milk products in the dairy ration should prove of interest to dairymen who have wondered about the advisability of adding such by-products to the cows' ration.

In experiments with matched groups of cows, dried skim milk, dried whole milk, and dried whey were added to the rations of three of four groups. The fourth group received a similar ration without dairy by-products.

Results show that dried skim milk and dried whey had no effect on production. However, the dried whole milk resulted in a small increase in the fat test. In other words, milk products containing no butterfat do not increase the fat tests or have any other effect which would make records misleading or inaccurate.

The University of Wisconsin researchers believe that nonfat milk products

could be a valuable addition to the dairy-cow ration when bought at prices comparing favorably with those of other feeds. In addition, using such by-products in the dairy ration would help to relieve some of the dairy surpluses.—*B. R., Wisconsin.*

Concrete strip helps dairyman

Floyd Wentworth, Dodge County, Minnesota, viewing his neighbors' feeding floors for beef cattle and fattening hogs, reasoned that a strip of concrete could well be adapted to a dairy setup, too. He tried it, putting a 75-foot apron across the south side of the dairy barn and along one end (see picture below). In wet, bad weather, Wentworth soon observed that his cows were cleaner, didn't have to stand in mud and manure outside of the barn, and brought in less dirt.

The ground level is low on this side of the barn, so Wentworth either had to make a fill or build a ramp for the cows to use in entering the building. He chose

Hunt

the ramp. It leads to an elevated section of concrete, surrounded by a white fence. The resulting enclosure, with gates at either end, also serves as an outside pen for calves on sunny winter days.

The concrete apron has another function—carrying away water from the eaves of the building. The concrete strip drains the water to a nearby waterway. Another advantage of the strip is that a manure spreader can be pulled up to the barn without getting mired in mud.—*W. H., Minnesota.*

Rotates pasture for more feed

Rotation of pastures resulted in one-third more good pasture days for dairyman Fred F. LaVack, St. Lawrence County, New York. He wanted to increase the milk production of his Ayrshire herd on the least expensive of feeds—good pasture.

After the hay was cut last summer, Fred fenced off his meadows into three sections. From midsummer until bad weather, his 30 cows had continuous aftermath grazing on 20 acres of land. One area was first-year alfalfa; the other two areas were mixed grass-and-legume meadows. By rotating the cows from one area to another, he was able to provide continuous grazing and still give the other plots time to recover. The alfalfa became leafy, and gained enough growth to come through the winter in good condition.

Night grazing was furnished by the permanent pasture, which included a 3-acre piece of birdsfoot trefoil seeded in 1950. The trefoil provided some feed last year and shows continuous improvement.

[*Turn to page 146*

"GLOBE IS EASIER ON OUR COWS"

Says Mrs. Emil J. Hajek, Myrtle, Minn.

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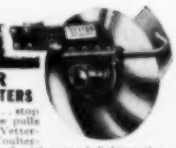

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Dairy

[*From page 145*]

Cobalt—promising ketosis cure

Cobalt is successfully used for curing acetonemia, or ketosis, by Dr. E. A. White, of the Department of Veterinary Medicine at Michigan State College.

He first gives the cow an injection of dextrose solution in the jugular vein. Then Doctor White dissolves 120 grains (2 level teaspoons) of cobalt sulfate in a pint of water. The cow is given 1 ounce (2 tablespoons) of this solution twice a day until she improves. The solution is sprinkled on the grain, or if the cow is too sick to eat, she is drenched.

Common symptoms of cobalt deficiency in young stock are unthriftiness, lack of appetite, and rough hair. To make sure this isn't the trouble, dissolve ½ teaspoon of cobalt sulfate in 1 pint of water. Feed 1 tablespoon of this solution to the calf daily for 1 week, then 1 teaspoon per day until the supply is gone. If there is a cobalt deficiency, the animal should show improvement in a week or so. Thereafter, give calves free access to cobalt with a trace-mineral salt.—*W. S., Michigan.*

Calf-management pointers

Remove newborn dairy calves immediately from the dam, says Prof. C. B. Knodt, in charge of dairy research at Pennsylvania State College. Otherwise, they will consume large quantities of milk. Much of this milk will cake and putrefy in the calf's rumen, causing scours and death if not corrected.

Knodt prefers to have the calf drink directly from an open pail. A nursing bucket, he feels, is more difficult to keep clean and he has had just as much success raising calves with an open pail. He does point out, however, that the calves should be allowed to get the colostrum for 3 or 4 days, as it is high in important proteins and vitamin A.

If the cow and calf remain together, Knodt found, a strong attachment for the calf was formed after 4 or 5 days. Then, when they are separated, the cow becomes nervous and excitable and won't let down her milk. Also, early cases of mastitis have been caused by vigorous nursing of calves. The infection has its start from teats injured by the calves.

A good calf starter of at least 16 percent protein is recommended for calves up to 4 months of age. This provides an additional source of vitamins A and D plus high-quality protein. The starter is fed just as soon as the calves will eat it. Rubbing the starter on their noses will encourage them to lick it off and soon they will be eating readily. Four or 5 pounds of starter are fed daily, according to the size of the calf.

Keep a good-quality hay before them at all times. A mixed hay is preferred to straight alfalfa or clover because of scouring possibilities. After the calves are 4 months old, they receive roughage only for growth. At 6 to 8 months they go on pasture. Heifers intended for replacements are given up to 4 pounds of hay daily.—*J. K., Ohio.*

New threat to dairy herds

Wisconsin dairy farmers may have another silent enemy in their midst, according to Dr. E. V. Morse, veterinarian at the University of Wisconsin. It is the disease known as leptospirosis. Two out-

breaks of the disease have been diagnosed in Wisconsin.

A survey in New York State showed that about 34 percent of the 103 herds tested carried the germ. Transportation of animals around the country has spread the disease. Within the herd, the germ probably passes through the air from cow to cow.

Infected animals have a high fever. The milk may be bloody or thick and production is lowered or may stop entirely. Abortion is common in many stricken herds. However, Doctor Morse points out that cows with these symptoms may not necessarily be affected with leptospirosis. The ailment may be something entirely different. A blood sample can be sent to a special laboratory for a diagnosis.

Pasture renovation pays

Renovation of permanent pastures results in more economical production of total digestible nutrients—in addition to increased yields—according to a study made by the Bureau of Dairy Industry.

The cost of establishing renovated pastures and maintaining them for 5 years at the U.S.D.A. Beltsville Station averaged $29.19 per acre per year, or 81 cents for each 100 pounds of total digestible nutrients produced.

On the same basis, except for renovation charges, the cost of maintaining the unrenovated permanent pastures used for comparison in these experiments averaged $24.14 per acre per year. This figured out 90 cents for each 100 pounds of total digestible nutrients produced.

Cows like fresh pasture

Lyle Rinkenberger, McLean County, Illinois, has only 9 acres of pasture for his 20 head of Guernseys. By dividing his pasture into 3 fields and feeding a little hay at milking time, he has maintained high production. Cows like the change of pasture and eat more of it.—*O. C. W., Illinois.*

Sure water supply

Bill Staubus, McLean County, Illinois, installed a water tank in the barn above his cows to supply water by gravity to automatic drinking cups. This takes a load off the pressure system and provides water when the electricity goes off. END

It's the truth

A piece of inner tube fits over the cow's nose. From there it connects to an old stove which in turn is attached to a vacuum sweeper and a gas meter. What is it?

It is a new gadget built by U.S.D.A. scientists for testing how much heat cows give off.—*Gus Larson.*

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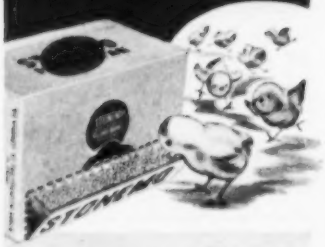

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STONEMO
EXTRA GRINDING SURFACES

Profitable farm flock

[*From page 50*]

income from their laying flock. On top of that, too many hours were spent carrying feed and water.

The shift to a 1,000-hen flock came in 1950. Recently Berendzen made this remark in connection with their expanded flock operation: "It doesn't take me as long now to care for 1,000 hens as it did to care for 250 birds when I had to carry water up the hill and the feed from the car shed."

However, jumping from a flock of 250 to 1,000 hens meant a sizable building program. Berendzen figured that his old 30'x32' laying house would take care of 250 hens. What he needed was a new house to handle the remaining 750 birds. A new 24'x104' house was his answer to this building problem.

This new laying house is the key building in the Berendzens' operation. It is designed to care for at least 750 birds with minimum labor. The open-front windows give good ventilation the year round. One-third of the open windows are covered with old feed sacks. Another row of windows above the open-front windows provides additional light. The inside of the house is divided into three smaller pens.

Now let's look at some of the laborsaving devices which have enabled the Berendzens to care for a flock of this size with minimum labor.

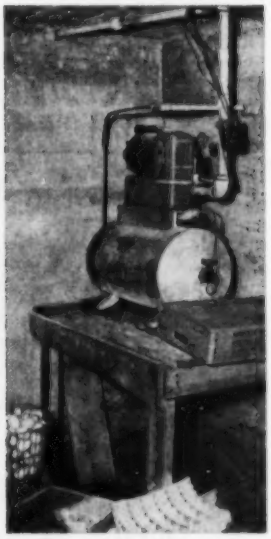
[*Turn to page 150*

Self-feeders are lined up alongside feed carrier. Feeders are filled once a week. The feed is formula-mixed at the local feed mill

Sawdust litter is built up to about 12" — removed once a year. Hens, scratching for grain, keep the litter loose. Floor is dirt

◆ **Eggs are sold** to hatchery market in Dallas, Texas. Delaware roosters are mated to New Hampshire hens (broiler strain) to get the broiler cross

Egg-holding room is located next to cistern, which helps keep humidity and temperature even year round. Eggs are gathered twice daily — picked up at farm weekly. Crating is in egg room



Water-pressure system is located in egg room. Rain water from cistern furnishes water for 1,000-hen flock and pullets on summer range

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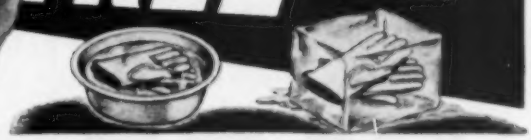

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Profitable farm flock

[*From page 148*]

The pitter-patter of rain on the roof of their new laying house is their answer to the water problem. Water from the roof is collected in a cistern below. A high foundation at one end of the laying house made it possible to build this 9'x10'x36' cistern. The cistern is 6' above the ground, 4' below. Two downspouts carry the water from the gutters on the front and back of the house to the cistern.

From this cistern, water is pumped to the automatic waterers in the new laying house, to the old laying house, to the brooder house, and to the pullet range. The waterers in the laying house are fully automatic. Drains below the waterers carry away spilled water.

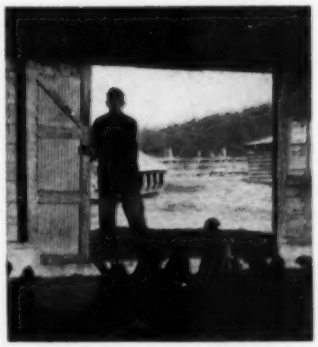
The tiresome job of carrying feed has also been greatly reduced in the new layout. A 10'x10' feed room was built in one end of the new laying house. A feed carrier is used to distribute sacked feed from the feed room to the other end of the 104' laying house. The track is built from 2x4s and bolted to the 1x4 overhead cross braces. An old hay carrier is used for rollers. The carrier has a metal frame and wooden platform.

Large self-feeders are located near the feed-carrier route. Each feeder holds from 300 to 400 pounds of feed and needs filling once a week. A 22-percent protein mash is kept before the layers at all times. Whole grains also are fed twice a day—oats in the morning, corn in the evening.

The Berendzens go along with the built-up-litter idea. Sawdust is used to cover the dirt floor. In a year's time, the litter reaches a depth of 12" to 14". The oats and corn are fed in the litter. The hens scratch for the grain, keeping the litter well stirred.

The litter is removed once a year. A large door at one end of the laying house allows Berendzen to back the manure spreader through the house for cleaning. Large doors between the three pens also allow him to back the spreader through the entire length of the 104' house.

No roosts are used in the laying house. Berendzen feels that doing away with roosts increases the capacity of his laying house. And with a heavy breed of hens, piling is no problem, and he sees no other disadvantage of a no-roost idea. Building



Large door on end of laying house allows Berendzen to back manure spreader into house for cleaning. Doors between pens are large enough to let spreader go through

costs were also cut by doing away with droppings pits. After a year's experience, he also removed the roosts from the old, 250-hen laying house.

However, Berendzen warns that pullets should be taught not to use roosts when they are young if the no-roost plan is to be successful. He also has removed the roosts from his shelters, making the pullets roost on the floor.

Morning lights are used to stimulate egg production during the late-fall, winter, and early-spring months. Berendzens use an evening light to help along with the no-roost plan. No dimmer light is used in the evening. When the lights are automatically turned off, the hens are in complete darkness. The result—the hens bed down wherever they happen to be when the lights go out.

Homemade community nests make egg gathering easy. The hens enter the nests at the ends, which are covered with strips of burlap sack. The eggs are removed through an opening in the side of the nest. Each nest unit is 4'x6' in size and is divided into two decks with two rows of nests to each deck. A steep tin roof prevents birds' roosting on nests.

The Berendzens have found that one big advantage of a larger flock is that hatcherymen are more interested in buying eggs from a sizable, well-managed operation. They are selling hatching eggs the year round to a broiler-chick hatchery in Dallas, Texas. They feel that the extra premium is enough to pay for the additional cost of producing hatching eggs and make some added profits on the side.

This switch in markets required a change from an egg-laying strain formerly kept on this farm to a meat type of bird. This flock consists of New Hampshire hens (broiler strain) mated to Delaware roosters. Berendzens keep 7 roosters for each 100 hens. The rate of lay from this strain is below that of egg-laying breeds. However, Berendzen believes the premium he gets for his eggs more than makes up for the difference in the rate of lay.

Producing hatching eggs has put an added stress on the production of top-quality eggs. The egg-holding room is located next to the cistern. Thus the temperature and humidity vary little throughout the year. The eggs are crated and held in this egg room until sold. Eggs are gathered twice a day, shipped once a week. The water-pressure system also is placed in the egg-holding room where it is handy for servicing.

As you can see, several factors are involved in a profitable farm flock. Your geographic location will determine to a certain extent the kind of special market which you cater to. Look for a special market which will pay you premium prices for quality eggs. Put these extra profits into an expanded, efficient operation and you have the answer to a successful farm flock. **END**

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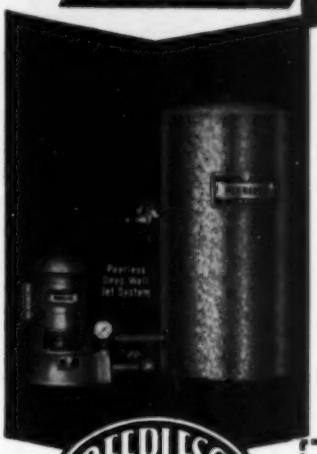

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Blandinsville's spring party

By Nancy Carpenter

The prettiest and most unusual social event of the season! That's the way to describe the table-decorating party sponsored annually by the ladies of the Blandinsville, Illinois, Christian Church. It's a completely new idea that any woman's group might want to borrow for their club—and what's more, it's fun to plan and prepare for this clever party.

Originally held on Good Friday, the "spring party" last year outgrew the church basement and had to be moved to the high-school gymnasium. The first party was held in 1948 with about 100 farm and town women present. In the four years following this party, the event has tripled in size. This year some 300 ladies shared in the fun.

Here's how the party is planned: Each member of the Willing Hustlers Sunday-school Class, the sponsoring group, develops a table-decorating idea. Then, working alone or with a partner, the ladies make their individual decorations and prepare a dessert to be served to the friends at their table. In past years the desserts have been as varied and unique as the decorations. Coffee is made by a committee and served to all the tables.

A program committee is also appointed. Their job is to plan the entertainment which precedes the refreshments. When the party was held on Good Friday, the program had an appropriate religious theme.

The attractive young lady putting the finishing touches on the table shown above is Miss Myra Sue Newell. Her mother, Mrs. Hugh Newell, designed the brightly colored birdhouses and tiny birds. A miniature birdbath placed in the center of the table is surrounded by green crepe-paper grass. Mrs. Newell's pleasant decorations are a good example of the detailed work that goes into each table theme.

Photographs: Pease

Spring isn't spring without a new bonnet! Mrs. Wayne Lefler designed her table around a colorful hatbox and made tiny bonnets for each of her guests. The miniature hats were cleverly trimmed with flowers, ribbons, and bits of real veiling

Table ideas are different each year! The Blandinsville ladies seem to find table-decorating inspiration everywhere. And even as the women survey their current spring party, they are looking ahead to plans for the following year. Ideas breed ideas—and guests who attend the party go home with clever decorating plans for every season, not only spring.

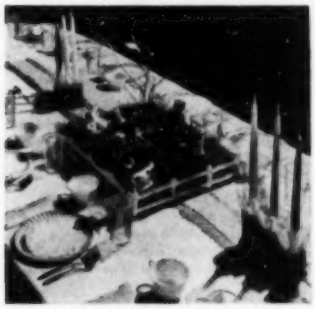
Pussy willows, wildflowers, daffodils, and other gay spring flowers are used abundantly by the decorators. You'll see colorful ribbons, balloons, and crepe paper, too. The women may use any size of table they wish, but have been limited some by the size of the party in the past few years.

This is not a contest. Tables are not judged for either their originality or craftsmanship, though they have both of these qualities. There is, of course, a sort of secret rivalry among the women to see who can produce the loveliest table. And each year more and more members of the Willing Hustlers Class enter the table-decorating fun.

Even the men get into the act. They carry things to and from the party, put up tables, and make the necessary last-minute repairs. What's more, they have the enviable position of being able to sample the desserts before they reach the decorated tables.

Sounds like fun? Well, ask any lady in Blandinsville, Illinois, and she'll tell you this spring party is something everyone looks forward to. It's an idea your club can't afford to do without.

April showers—and what's more appropriate than a parasol? Mrs. Charles Hodges "planted" her parasol in a bouquet of flowers and draped cellophane ribbons to give the effect of rain. Howard Hensley, husband of one of the other members, samples Mrs. Hodges' mint appetizers



A common spring scene was used effectively by Mrs. Laurence Shugart in this table scene. The tiny dolls are dressed in spring costume and the boy with his runaway kite brought many comments of praise

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FIG FILLING Spread fig jam between layers. Sprinkle powdered sugar on top of cake.

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Herbs add zest to vegetables

By Mary Collum

Start with six—six herbs to give your vegetable dishes new personality—for herbs make a difference in cooking.

Just as a starter, add these to your seasoning shelf: marjoram, mint, oregano, rosemary, savory, and thyme. With the help of these six herbs, your family will experience new flavor thrills with spring vegetables.

If you're cooking without a recipe, "just a pinch" is a good general rule. Better to use too little than too much.

Until you discover your favorite herb-and-vegetable combinations, here is a guide that will serve you well. It introduces six common herbs, and suggests the use of each with several vegetables.

Marjoram: carrots, peas, spinach, zucchini.

Mint: carrots, green beans, peas, potatoes, spinach.

Oregano: green beans, onions, peas, potatoes, spinach.

Rosemary: cauliflower, peas, potatoes, spinach, turnips.

Savory: cabbage, Lima beans, peas, sauerkraut.

Thyme: beets, carrots, eggplant, Lima beans, mushrooms, onions, potatoes.

Baked Stuffed Idaho Potatoes

Makes 4 servings

Wash . . . **4 medium baking potatoes**
Rub skins with **butter.**
Bake at 425° (hot) 1 hour or until done.
Cut small slice lengthwise from top of each potato.
Scoop out shells.
Mash potatoes.
Add . . . . . **¼ cup light cream**
2 tablespoons butter or **margarine**
½ teaspoon rosemary
½ teaspoon salt
few grains pepper
Fold in . . **2 eggs,** well beaten
Stuff mixture into potato shells, piling high.
Sprinkle with:
2 to 3 tablespoons Parmesan cheese
Return to oven and bake 5 to 10 minutes, or until golden brown.

Silver Onions Oregano

Makes 4 servings

Peel carefully:
12 small white onions
Place peeled onions in heavy saucepan.
Cover with rapidly boiling water.
Add . . . . . **½ teaspoon salt**
¼ teaspoon white pepper
Boil, uncovered, over medium flame for 10 minutes, or until partially tender.
Add . . . . . **1 teaspoon oregano leaves**
Boil 10 minutes, or until onions are tender.
Drain.
Add . . . . . **¼ cup melted butter** or **margarine.**
Stir gently.

Minty Carrots

Makes 4 servings

Add gradually:
1 cup water to
1 tablespoon cornstarch
Add . . . . **½ cup corn syrup**
1 teaspoon lemon juice
½ teaspoon salt
½ teaspoon monosodium glutamate
Heat to boiling and boil gently for 2 minutes, stirring constantly.
Add . . . . . **2 tablespoons butter**
¼ cup chopped, fresh mint
2 cups sliced carrots, cooked
Heat to boiling.

Lima Beans With Piquant Sauce

Makes 4 servings

Cook as directed:
1 12-ounce package frozen Lima beans
Add to bean liquid:
light cream to make **1½ cups**
Melt . . . . . **3 tablespoons butter** or **margarine**
Saute in butter:
¼ cup chopped onion
Stir in . . . **2½ tablespoons all-purpose flour**
Add bean liquid-and-cream mixture.
Cook until thick; reduce heat.
Stir in . . . . **¼ cup grated American cheese**
Cook until cheese is melted.
Add . . . . **½ teaspoon salt**
2 teaspoons Worcestershire sauce
dash of marjoram
dash of thyme
dash of savory
Add Lima beans; heat.
Serve warm and garnish with **chopped parsley.** END

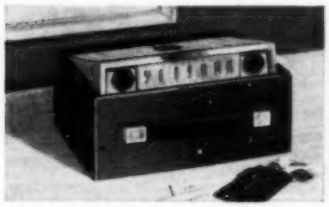
For easy enjoyment and relaxation listen to a Motorola Radio . . . anywhere

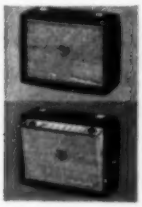
"PLAYMATE JR." METAL CASE PORTABLE RADIO—Built for lasting pleasure with a sturdy "armored" metal case enameled Green, Gray or Maroon with Aerovane antenna built into its flip-up cover. AC, DC, battery power, finest tone and performance. **Model 52M.**

New Motorola radios outperform others anywhere!

NEW MOTOROLA RADIO-ALARM accompanies your busy day with radio entertainment . . . wakes you with a dependable alarm and soothing music . . . turns appliances on and off . . . keeps accurate time . . . turns itself and your lamp off with a cozy "good-nite" after you're sound asleep.

NEW MOTOROLA PORTABLES play everywhere so take one along wherever you go and make every outing an exciting event. Designed for easy carrying, extra light and compact—yet with amazing new Concentrated-Power reception, outstanding tone quality and durability!





"TOWN & COUNTRY" 3-WAY PORTABLE RADIO—Styled to play with concealed dial tilt-out panel open or closed, upright or on its back like a table radio. Green, Gray or Maroon plastic cabinet, AC, DC, battery. Long-range Concentrated-Power. **Model 62L.**

"ESCORT" CAMERA-SIZE PORTABLE RADIO—Powerful reception range, tone and volume! Handsome styling in silver-color metal and husky black Royalite. Plays upright or leaned on carrying handle. **Model 52B.**

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Only Briggs & Stratton maintains such complete national and world-wide authorized service facilities.

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Weighs 8 lbs—Pulls ½ Ton!

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ORDER TODAY FROM YOUR DEALER If he hasn't the genuine Golden Rod, send $6.98 and we'll ship direct, postpaid. GET YOURS NOW. $6.98

DUTTON-LAINSON CO., Mfg. Div. Dept. S, Hastings, Nebr.

How to clear up pond water

Does your farm pond get muddy and murky-looking in the spring and stay that way all summer?

There is a new and cheap way to keep your pond water clear for livestock, swimming, fishing, and even household use. Just add some agricultural gypsum or commercial aluminum sulfate to the pond, and it will clear up immediately.

Recent tests of two muddy ponds in Missouri by C. M. Woodruff, soils research man, and Marion W. Clark, extension agricultural engineer, gave these results:

"The water in one large pond was so muddy before it was treated that one could not see the fingers when the hand was submerged up to the wrist," Woodruff said. "And following the treatment, minnows could be seen at depths of 2 to 3 feet. Laboratory tests showed that the treated water transmitted 94 percent of the light compared with 100 percent for average, good city water."

This large pond is on the farm of Harold Riback, Boone County, Missouri. He reported that the fish in the pond definitely started biting as the gypsum was applied and as the water in the pond became clear.

Is it difficult to treat a muddy pond? Not at all. If you use gypsum, scatter it over the pond from a rowboat in order to get some of it over most of the pond's surface. If you use aluminum sulfate, it doesn't need to be spread over the surface of the pond because it dissolves readily in water. Aluminum sulfate was poured into an old tub which was carried out into the shallow area, filled with water, stirred, and the dissolved solution poured into one of the test ponds.

Which is the best, gypsum or aluminum sulfate?

Aluminum sulfate is about four times as effective as gypsum, according to Woodruff, and probably more advisable if the pond water is to be used for household purposes. Woodruff says this aluminum-sulfate treatment is essentially the same as that used by most water purification plants when city water is obtained from lakes or small streams. Total cost of treating a pond will be about the same with either gypsum or the aluminum sulfate.

Agricultural gypsum is easier to purchase than the aluminum sulfate, as most lumberyards carry this product, according to Woodruff. He points out that the extra weight of the gypsum is not a serious factor on the average farm pond. Commercial aluminum sulfate must be purchased through chemical-supply houses in the larger cities.

How much agricultural gypsum or aluminum sulfate do you need for the average-sized farm pond or lake?

"About 7 bags (700 pounds) of gypsum is enough to treat the average half-acre pond, and about 20 bags should be used on a 1-acre pond," Woodruff said. He suggests that your local lumberyard order it along with a shipment of plaster to take advantage of the lower freight rates avail-

able on carload-lot shipments. Total cost of treating the average-sized pond should be about $10 to $15. Gypsum is a white powder used for making plaster. Here is the way Woodruff and Clark arrive at the amount of gypsum needed in the pond water:

The amounts of gypsum required in the two tests they conducted on Missouri ponds amounted to from 11 to 13 pounds per 1,000 cubic feet of water. In some instances less gypsum will be required and in other instances a little more will be needed.

A rule of thumb for estimating the volume of a pond is to consider the average depth of the pond to be one-third of the depth at the deepest point. This average depth multiplied by the area in square feet gives the volume of water to be treated. Figuring 12 pounds of gypsum for each 1,000 cubic feet of water gives the 7 bags required for the average half-acre pond. More can be added when necessary.

As mentioned, aluminum sulfate is about four times as effective as gypsum. Use only 3.5 to 4 pounds of the aluminum sulfate per 1,000 cubic feet of water.

"The fertilizer used on the cover crop of the pond's watershed has much to do with keeping your pond clear," Woodruff says.

Phosphate should be applied to the watershed. "For this purpose, the 20-percent superphosphate is better than rock phosphate or 45-percent superphosphate," Woodruff said. This is because the lower-grade phosphate is about half gypsum, and gypsum keeps clay flocculated so it will not wash into the pond. Woodruff suggests a minimum of 1,000 pounds per acre of 20-percent superphosphate be applied to the watershed.

How long will your pond remain clear after treating?

One pond treated with gypsum last spring went through the exceedingly heavy rains of last summer when the Missouri River went on its record-breaking rampage. There was ample rainfall last winter and the water is still classified as clear. This water is being used in the household.

Another pond treated with aluminum sulfate last summer had the same heavy rains and is still clear.

The size of the watershed and the amount of water which runs through the pond is important. Gypsum or aluminum sulfate are carried out of the pond more quickly as the flow increases.

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Decorating advice. Stores offering **Successful Farming's** home planning service are listed on page 122. Visit store nearest you for help with decorating problems.

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THE HOMEMAKER'S CORNER by Betty Woods

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Carry a paper bag for collecting litter when "straightening up" the house. Contents can all be dumped at once.

How to polish furniture and floors in a jiffy

Shine 'em quick 'n' easy with O-Cedar All-Purpose Polish. NO HARD RUBBING—and what a luster! Does 3 jobs at once: *Cleans! Polishes! Protects!* Few drops on duster cloth prevent dust scattering.

How to dust floors the easy way

Use an O-Cedar Triangular Mop. *Sweep-suction* action works like a charm—picks up more dust and *holds* it! Wedge-shaped tip cleans corners. Washable. Polish treated, or untreated for waxed floors.

See the man who sells

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Guaranteed by Good Housekeeping

15 ways to save space in your freezer

By Jan Maple

1 Freeze *only* the amount of each food you are sure to use within a reasonable length of time.

2 Use square-cornered containers instead of round, where possible. (In a given amount of space, you can get two or three times more square-cornered ones than round ones of the same capacity.) Buy or pack homemade ice cream in rectangular cartons. Freeze casserole foods and leftovers in flat, rectangular utensils—besides conserving space, they thaw and reheat faster.

3 Bone and trim excess fat from meats before freezing. Use bones to make soup stock.

4 Package steaks and other sliced meats flat, not rolled. Much easier to use.

5 Mold soft foods, like ground meat, in ice-cube trays or square-cornered tin cans; freeze, then unmold, and wrap for storage.

6 Cut poultry in pieces for frying or stewing; fit it compactly into rectangular cartons for freezing. Split broilers down the backbone, nest one half inside the other, and wrap them flat.

7 Make broth or soup from chicken wings, backs, and necks; freeze in that form rather than as space-wasting, bony pieces.

8 To give regular form to shapeless plastic bags, put them inside paper cartons—then fill and freeze. Butter, milk, and ice-cream cartons will work fine for this, but don't use them without a plastic liner.

9 Trim meat off leftover ham, roasts, and turkey before freezing. Package slices flat; put pieces in cartons for hash; or grind to make sandwich spread—then freeze.

10 Bake square loaf and layer cakes, square pans of rolls, square-cut cookies and biscuits. (Less trouble to package, as well as less space-consuming.)

11 In packaging whole asparagus spears, stalks of broccoli, and similar foods, alternate the large and small ends to get more in each carton.

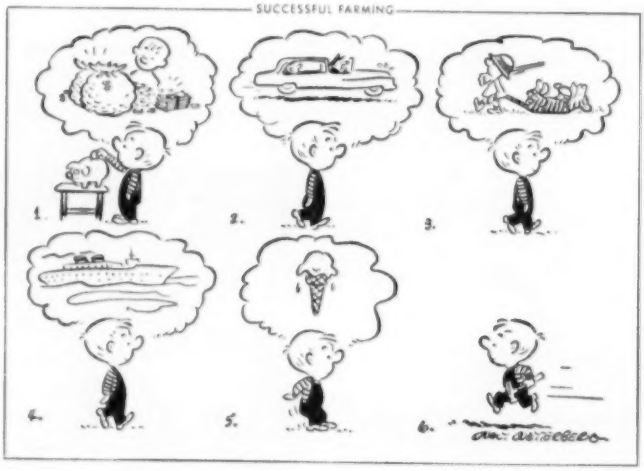
12 Use containers that stack well. Avoid overfilling cartons so they bulge and refuse to stack up evenly after freezing.

13 Use a plastic refrigerator "crisper" or a large, square ice-cream carton to confine miscellaneous odd-shaped items.

14 Get containers in assorted dimensions so you can fill your freezer with no leftover spaces. If your freezer has rounded corners, stack round containers there.

15 Freeze only top-notch foods, only those recommended for freezing, and only those which really require low-temperature storage conditions to retain their flavor and texture. **END**

SUCCESSFUL FARMING



Vaccination reminders

Do you keep records of your children's vaccinations? How do you know when they should receive their next "booster" shot or new immunization?

Miss Pauline Brimhall, health specialist, University of Illinois College of Agriculture, recommends keeping records of the types of immunization your children receive and the dates they are given. This information often is requested by doctors or school authorities. And parents can relax if they know when their children were vaccinated and when it must be repeated.

"Preventing communicable diseases is much easier than treating them," comments Miss Brimhall. "It costs less money, time, and pain."

Infants should get original immunization against diphtheria, whooping cough, and tetanus when they are between 3 and 10 months old. It should be given in several doses—and upon the advice of your doctor.

When your children are ready to go to school, and within the next 5 years, they should receive booster doses for these three diseases. After they are 12 years old, diphtheria immunization should be given only on advice of your family doctor.

Protection against smallpox should be given during the first year of life and upon entrance to elementary and secondary schools. If your child is exposed to smallpox, this dose must be repeated—unless a successful vaccination within the past 5 years can be shown by health records or a scar on the arm. Remember, too, that adults should receive smallpox immunization every 5 to 7 years.

Evening

I remember the old lane at evening
Where cattle left their footprints in the clay,
The scent of plum; the birds' low twittering
Accented fence rows all along the way.

The blue pond at the angle of the hill
Wore sunset as a crowning *fleur-de-lis;*
The locusts swelled and faded and were still;
Sweetwilliams coaxed the errant honeybee.

Oak trees massed against the golden sky
Brooded beneath its gay disordered clouds.
Each shadow, sinking with a gentle sigh,
Made tinted veils and faintly darkened shrouds.

Then as a benediction soft and light,
God touched the day and changed it into night.

—*Letty Moon*

Likes fast rising, fast dissolving Dry Yeast

Young Mother Wins Cooking Sweepstakes

Little Tommy and Susan admire Mother's blue ribbons at their home in Hutchinson, Kansas. Mrs. J. R. Glass has been entering cooking contests at the Kansas State Fair for five years now and has every right to be proud of her prize record. Last year she won four firsts, a second—and a much-coveted sweepstakes award!

Mrs. Glass is another of the many prize-winning cooks who swear by Fleischmann's Active Dry Yeast. "It's grand for a busy mother like me," she says. "It dissolves in a jiffy—and rises so fast. I always keep a supply of this speedy Dry Yeast on hand."

It's hard to beat the rich flavor and goodness of yeast-raised treats . . . they're so nourishing, too! When you bake at home, use yeast. And use the best—Fleischmann's Active Dry Yeast. It's so fast and so easy to use! Just add to warm water, stir until dissolved—and it's ready. For grand results every time, get Fleischmann's Active Dry Yeast.

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Send ad with 10c for mailing. Sizes 116, 120, 616, 620 only. Mention size; limit ONE roll. Offer good for 30 days.

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SPECIAL OFFER! 2.98 COUPE OR FRONT SEAT

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• Stainproof
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RED, BLUE or GREEN • LEOPARD and ZEBRA also available

Add instant class to your car! Snap-on action holds 'em tight. Color fast. No fade! No shrink! Wash with damp cloth. SEND NO MONEY! Order TODAY at our risk! Give year and make of car, 2-door, 4-door, or coupe, and color preference. Pay postman plus postage. Or send Cash, Check, or Money Order and We Pay Postage! Keep 10 days—return for full refund of purchase price if not fully satisfied, but HURRY—this offer can't last!

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YOUNG PRODUCTS

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A HAND-SIZE CHAIN SAW

A Goldmine for Farmers

TIMBER
CORDWOOD
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This "little fella" cuts more timber in less time than 10 men with hand saws. Cuts trees up to 2 feet wide. Weighs just 11 lbs. Operate it with one hand. The Perfect saw for pruning.

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Mr. Clarence Schroeder

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My husband had strep sore throat and couldn't get rid of it. Our veterinarian treated our cow for mastitis. On his advice, my husband stopped drinking her milk and his sore throat left. We bought pasteurized milk until we got our Home-Health Pasteurizer—now we are assured of milk we know is safe.

Mrs. Clarence Schroeder
Farhamville, Iowa

HAVE DISEASE-FREE* MILK

this easy way!

The simplest, easiest to use, most economical electrical home pasteurizer you can buy. Can't boil milk or cause "cooked taste." Pasteurizes a gallon at a time. No need to check temperatures or watch the clock. No stirring necessary. All aluminum, easy to lift and store. No moving "agitator" to cause trouble. Laboratory tested and guaranteed. Accepted for advertising by American Medical Ass'n. Ask your dealer or mail coupon for details.

Automatic—just turn it on—it does the rest

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PASTEURIZER

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Please send free folder giving facts on milk-borne diseases and details on the Home-Health Pasteurizer.

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* **UNDULANT FEVER** *Typhoid Fever, Scarlet Fever and Tuberculosis are other milk-borne diseases. The Home-Health Pasteurizer destroys these germs . . . makes milk safe for your family.*

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Model No. 1942
4 to 8 Cup Capacity
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Field Service Man

He stands ready to answer your questions or refer them to *Successful Farming's* expertly staffed Subscribers' Information Bureau.

Make it a point to ask him to show you a copy of *A Better Living From Your Soil*. He can show you how it helps you to do better farming and enjoy better living, how to better profit from your farm, and how future articles in *Successful Farming* will keep you posted on the latest developments in soil care.

SUCCESSFUL FARMING FIELD SERVICE MAN

Doubly useful tables

[*From page 52*]

As a coffee table

As a game table

This talented coffee table rises to card-table height by pulling up on top. Two drop leaves enlarge surface for games, dinner, or a study desk. Casters on legs make it easy to move from one room to another

This low coffee table has a hinged top which unfolds at the twist of a wrist, and swivels around to form a big square surface for serving meals or for games. Underneath is a large storage compartment. **END**

Do you have a favorite housekeeping short cut? *Successful Farming* pays $5 for each suggestion published. Send your hints to: All Around the House, *Successful Farming*, Des Moines 3, Iowa. Unused suggestions cannot be returned.—Editors.

Latest "know-how" in foods

Your market basket of new products, ideas, research

To scald or not to scald: Scalding has long been an accepted step in preparing vegetables for the freezer. But many homemakers have puzzled over whether it is necessary for short-term freezing—one month or less. The Minnesota Agricultural Experiment Station has the answer. Even for periods of one month or less, scalding or blanching notably improves the quality of the frozen vegetables. All of the unscalded vegetable samples tested developed marked off-flavors.

Home freezing of French fries: In most homes French-fried potatoes are a popular item, but they require lots of time and attention while you're preparing the meal. You'll be happy to know they can go in the home freezer along with your fruits and vegetables. Studies done at the Bureau of Human Nutrition and Home Economics, United States Department of Agriculture, show that French fries can be frozen and held at 0 degrees for not more than 2 months. Their quality compares favorably with that of freshly fried potatoes.

Suit the banana to the use: Here are three easy rules for selecting the right banana for your purpose.

1. If the banana is tipped with green, it's just right to cook as a vegetable. The pulp is firm, starchy, and slightly tart.
2. When the banana is all yellow, it's still firm enough to bake, broil, or fry. It's also ripe enough to eat or to use as an ingredient in baking.
3. A banana flecked with brown is fully ripe and in its prime—the very best stage for eating.

Turkey tips: If you're a once-a-year turkey fan, you're missing a bet. Small turkeys are a year-round treat these days—plentiful and comparatively cheap.

Never stuff your turkey with warm stuffing and then hold it overnight before serving. Never partially roast a turkey one day, then leave it out of the refrigerator overnight. Instead, put it in the oven early in the morning and roast it all at once.

Don't let gravy, dressing, or cooked turkey stand at room temperature for even a few hours. Refrigerate! Keep leftover turkey covered in the refrigerator, or you'll rob it of delicate flavor. Use it up as soon as possible in interesting—and delicious—dishes. END

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the Easier, Better **CROWN** *Way!*

● Use these work-saving CROWN products to preserve foods in half the time—with far greater safety . . . for the BEST results.

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For help with your home planning, furnishing and decorating problems, visit one of the stores cooperating with Successful Farming's home planning service. You'll find a store near you listed on page 122.

IF ELECTRIC SHAVERS
CAN'T TOUCH YOUR BEARD
YOU NEED A

THE SHAVER THAT SHAVES ANY BEARD

Whisker's clipper-type .002" thin blade shaves any length beard, even to 7 days' growth, without pulling or stalling. 110v AC model; no TV or radio interference! See your barber or dealer. If he cannot supply you, send $15.95—we pay postage; or send $2, you pay balance plus postage and C.O.D. 10-day money-back guarantee.

CADET ELECTRIC HAIR CLIPPER

Cuts hair, removes superfluous hair from legs and under arms. The same fine quality clipper used and sold in many beauty shops. See your shop, or dealer. If you prefer, send $10.95—we pay postage, or $2, you pay postman balance, postage and C.O.D.

ELECTRO TOOL CORP., Dept. WS42-E, Racine, Wis.

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WARM AIR FURNACES

Complete line of Oil, Coal, Gas or LP Gas Furnaces

Cold winters and large rooms are no match for the WILLIAMSON Tripl-ife ALL-FUEL Furnace. Designed for maximum heating comfort during the most severe winters, WILLIAMSON Tripl-ife ALL-FUEL Furnaces are guaranteed for 20 years. Tripl-ife alloy iron castings withstand many times the heat required to burn out ordinary grey iron furnaces. Write today for details.

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☐ Arrange for a FREE Heating survey of my home
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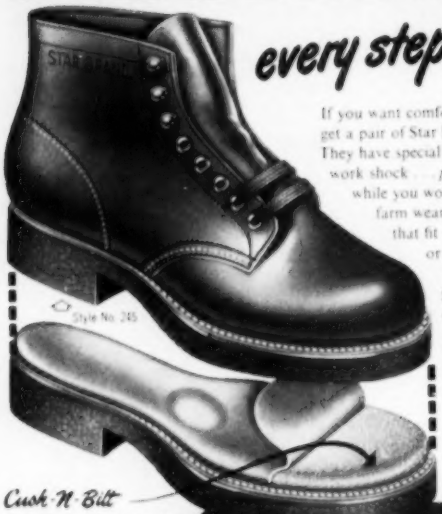
Address_____
City_____ Zone____ State____

this amazing, new work shoe cushions every step you take!



If you want comfort like you've never had before get a pair of Star Brand Cush-N-Bilt work shoes! They have special cushion innersoles that absorb work shock . . . *pillow* your feet in rare comfort while you work! And they're really built for farm wear with one-piece seamless backs that fit like a glove . . . *no seams to rip* or rub your heels, ankles! Sturdy non-slip Cork outer soles and genuine *cowhide* leather uppers, *retanned to resist barnyard acids*, are other features that mean Star Brand Cush-N-Bilts give you greater comfort, better value . . . and extra long wear!

Fine Goodyear Welt Construction

Cush-N-Bilt Extra soft, resilient sponge rubber insoles covered with smooth leather to give superb, lasting comfort!

same pattern as above, without Cush-N-Bilt feature available in **genuine horsehide!** ask for shoe #223 (many other styles in horsehide, too!)

STAR BRAND *Cush-N-Bilt* **WORK SHOES**

For nearest dealer, write **Roberts, Johnson & Rand**, DIV. OF INTERNATIONAL SHOE COMPANY, ST. LOUIS 3, MO.

For friendly help with your building, furnishing or decorating problems, visit the store nearest you offering **Successful Farming's** home planning service. Stores are listed on page 122.

New Extra Mileage New Tempered Rubber Soles

ONLY THESE BOOTS HAVE THEM

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The PLAY

Where Playfellows

Dabby to the Rescue!

Dabby Duck was the nicest, fattest little duck you ever saw. His two eyes were black and shiny, his flat bill and webbed feet were dark yellow, and all his soft body was bright yellow. Dabby looked like a plump ball of sunshine.

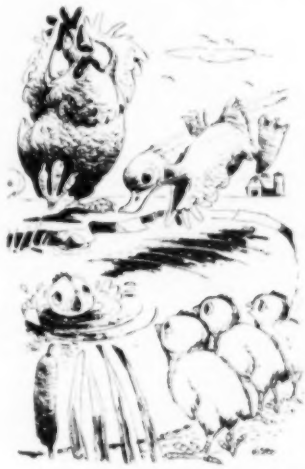
But poor Dabby was the most unhappy little duck in all duckdom. You see, he was the only duck on Farmer Brown's big farm. A neighbor lady who raised ducks had given him to little Tommy Brown. Dabby had a very nice home, but he was so lonely. All of the big chickens laughed at him, and the little chicks would not play with him. They made fun of Dabby because he had webbed feet and liked to swim and play in the big pond in the meadow.

One day, one of the mother hens took her chicks out in the meadow. She was catching bugs and the chicks were chasing a big red butterfly. Lonely Dabby was behind them, playing by himself. They got quite near the pond, but the chicks were watching the butterfly and paid no attention to the water. Pretty soon, "KE-RR-SPLA-SS-HH!" Into the water went one of the chicks!

The water was deep, and the tiny chick couldn't swim at all. The mother hen and the rest of the chicks ran up and down the bank, crying and calling and flapping their wings. But none of them could swim either!

Suddenly, a yellow streak went past them and out into the water. It was Dabby! He dived down into the water and came up under the chick! Then he swam back to land with the chick safely on his back!

Dabby isn't lonely now. All of the big chickens are proud of him and all of the little chicks want to play with him. After all, they say, anybody can scratch and crow and catch bugs. But it takes someone as wonderful as Dabby Duck to dive and swim in the big pond!—*Joelean Young.*



HOUSE

meet every month

Animal families. In this puzzle, the mama and papa of the family are named. Can you name the baby?

1. Ducks: drake, duck, and _____
2. Goats: billy, nanny, and _____
3. Chickens: rooster, hen, and _____
4. Rabbits: buck, doe, and _____
5. Cattle: bull, cow, and _____
6. Sheep: ram, ewe, and _____
7. Geese: gander, goose, and _____
8. Turkeys: gobbler, hen, and _____
9. Kangaroos: kangaroo, kangaroo, and _____
10. Cat: tomcat, tabby cat, and _____

Answers: 1. Duckling; 2. Kid; 3. Chick; 4. Bunny; 5. Calf; 6. Lamb; 7. Gosling; 8. Poult; 9. Joey; 10. Kitten.

Fruit or vegetable? Sometimes when we refer to different things, we use a fruit or vegetable name to describe them. What name is used for:

1. A redheaded person
2. An unpleasant person
3. A beloved child
4. Money
5. A dull person
6. A well-thought-of person
7. Some jokes
8. An empty-headed person
9. Similar people
10. A desirable political appointment

Answers: 1. Carrot (top); 2. Lemon; 3. Apple (of his eye); 4. Lettuce; 5. Cabbage (head); 6. Peach; 7. Corn; 8. Pumpkin (head); 9. (as like as two) Peas (in a pod); 10. Plum.

Ten common expressions are listed below. In each, some part of the human body is named. Can you supply the missing parts by filling in the blank spaces?

1. A green _____
2. High _____
3. Poker _____
4. Cauliflower _____
5. _____ breaker
6. _____ the mark
7. _____ bone
8. Sleepy _____

Answers: 1. Thumb; 2. Brow; 3. Face; 4. Ear; 5. Jaw; 6. Toe; 7. Back; 8. Head.

In or Out. Hundreds of words start with "in" or "out." Here are 20 words—10 beginning with "in" and 10 with "out." Read through the list, placing "in" or "out" in front of each of them. If you go quickly, it will be harder but more fun.

1. spoken; 2. different; 3. line; 4. deed; 5. vade; 6. look; 7. skirts; 8. break; 9. correct; 10. vest; 11. do; 12. trude; 13. decent; 14. bid; 15. number; 16. direct; 17. shine; 18. sert; 19. rage; 20. sist.

Answers:
Out—1, 3, 6, 7, 8, 11, 14, 15, 17, 19.
In—2, 4, 5, 9, 10, 12, 13, 16, 18, 20.

He looks up to you . . .

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Grinder is drilled for mounting on wall or bench. Available with electric motor . . . or can be used with gasoline engine for field work.

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Plant sorghum

where wheat leaves off

By R. E. Karper
Texas A. and M. College

The wheat farmer who was agile enough to swap a poor wheat prospect for a late-planted sorghum crop made money in 1951. Sixty to 70 percent of the wheat acreage in the Texas Panhandle was so abandoned and converted to Combine milo. Much of it was planted in 14- to 28-inch rows with a wheat drill and all was harvested with a combine.

Weather, disease, and other hazards already have knocked out some of this year's wheat acreage. *But it's not too late to prepare for a crop of sorghum.*

There is a wide choice of combine sorghums for grain. If the crop is to be grown in the middle or northern latitudes, pick an early-maturing variety such as Martin, Midland, Westland, Redbine-60, or Combine Kafir-60. They will reach maturity in about 100 days from planting. Norghum, a still earlier variety developed at the South Dakota station, is productive in that area.

The later-maturing varieties have potentially higher yield but need a longer season, a fertile soil, and enough rainfall. Such varieties are Redbine-66, Plainsman, Redlan, Caprock, and Kafir 44-14. The combine sorghums have all been bred for double dwarf height (36 to 42 inches), just right for harvesting with a combine. But there are also other important characteristics a good variety should have. It should have a stout stalk and be able to stand up in the field until ready for harvest. Short stature, earliness, stout stalk—it is difficult to say which is the most important.

Dry head stems and rachises which begin to dry out as soon [*Turn to page 166*

Combine Kafir-60 is a short, stout-stalked, 100-day variety, grown for its resistance to chinch bugs

Double Dwarf 38, a high-yielding, low-down variety, grows in farthest Southwest

Martin grain sorghum is a central and southern variety. It combines early because stems dry as soon as heads ripen

Early hegari, a dual-purpose sorghum, used for grain, silage, bundle feed, or grazing

Thicker planting, resulting in slightly smaller heads, gives higher yields than where heads reach maximum size

Another great new development in Pillsbury Feeds!

Diamine Penicillin

For CHICKENS

...20% to 25% better growth

Tests show that Diamine Penicillin helps add 8% to 10% greater growth power over previous antibiotic combinations. The old "Mycin" mixture was averaging 15% over the control ration, so you can see what Pillsbury poultry feeds can do now!

Newest "MYCIN" of them all is the best antibiotic for poultry. Promotes faster growth, better health, better feed conversion

For TURKEYS

...up to 30% more growth

Pillsbury's "MYCINS" last season were producing 20% to 22% extra growth in turkeys. With the addition of Diamine Penicillin, increases of up to 30% over control are possible. Think what that can mean for your turkey feed costs and profit!

"Mycins," the most famous family of antibiotics in animal and poultry feeding, has a new member! It is Diamine Penicillin, *a brand new form of penicillin, developed specifically for poultry feeds.*

The new antibiotic has been added to Pillsbury's exclusive "Mycins" combination, which already has been so successful. In addition to Diamine Penicillin, Pillsbury poultry feeds now contain Terramycin, Aureomycin, Streptomycin and Bacitracin.

The new combination has produced better growth response than can be obtained with other forms of penicillin—greater, in fact, than with any of the commonly used antibiotics. Tests show 20% to 25% extra growth in chickens, up to 30% extra growth in turkeys, as compared to high-grade rations without antibiotics.

Stability is another point in favor of the new "Mycin" member. As many poultry raisers know, lack of stability has been a problem with penicillin in the past. But Diamine Penicillin has proved to be extremely stable through milling and pelleting processes, and in feed storage.

This means your birds get full effectiveness of the antibiotic. Chickens and turkeys grow faster and have better health. They give you better feeding efficiency, lower feeding costs.

See your Pillsbury Feed Dealer. Take advantage of this great new development in Pillsbury feeds.

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POULTRY FEEDS with "MYCINS"

Pillsbury's BEST XXXX FEEDS

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Pillsbury Mills, Inc., Feed and Soy Division,
Dept. SF-52, Minneapolis 2, Minn.

Gentlemen: Please send me the latest information on Pillsbury poultry feeds containing Diamine Penicillin, and what it can do for my birds.

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I am raising ____ Layers ____ Broilers ____ Turkeys
(give approximate number)

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COMBAT INFECTION
PROMOTE HEALING

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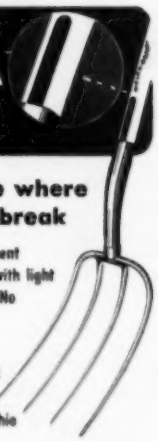

unbreakable where other forks break

Steel beam reinforcement gives super-strength with light weight, lively action. No premium in price.

The Union Fork & Hoe Co.
Columbus 8, Ohio

Plant sorghum

[*From page 164*]

as the grain is mature are two other characteristics all satisfactory combine varieties eventually will have. Martin and Redbine-60 already have them—they are ready for threshing earlier and the grain has lower moisture content than other varieties. The grain dries out in the field and keeps better in storage, eliminating the need for artificial drying. Sorghum breeders are perfecting new and better types of combine sorghums which in a few years will replace those in use now.

Dual-purpose varieties of sorghum, usable for both forage and grain, come in handy where there is livestock. They also make ensilage.

Bundle sorghum can be used to supplement native winter range. Or it can be fed when there is snow on the ground, or fed to livestock on winter-wheat pasture. It is high in grain and produces good gains. This type of sorghum often is grown in combination with wheat pasture, saving the labor of harvesting and feeding the sorghum. Bundle sorghum also provides a dry roughage which gives the animal a more balanced diet. Scouring, commonly occurring among cattle on a straight-wheat pasture, is also reduced.

Early hegari, hegari, and Hi-hegari are among the most palatable of such dual-purpose sorghums. As bundle feed, these are relished by livestock. Blackhul kafir, Feterita, Darso, and Schrock are also used and have a high proportion of grain. Coes and Highland kafir are early varieties suitable for higher altitudes and more northern areas.

Sorghums are native to the tropics and make their best growth in hot weather. Extremely early or very late planting is not advisable. Planting should not be done before the soil warms up thoroughly in the spring, and until several weeks after corn-planting time. The planting season usually extends over a 30-to-60-day period. Plantings made late usually give better yields of grain and better quality of forage, providing they have enough time to mature. *May 15 to June 15 is a good time to plant—even later if early-maturing varieties are used.*

Sorghums ordinarily are planted in cultivated rows like corn and given the same clean cultivation. The seed is relatively small and early growth is slow, so that weeds have to be controlled. The planting rate can vary widely with not too much difference in yield. However, where the soil is fertile and moisture plentiful, thicker stands will produce higher yields.

Stands of 2 to 3 inches between plants in the row are about right. Five or 6 pounds of seed to the acre should give such stands. In dry areas the stands should be reduced to at least 4 to 6 inches between plants. A thicker stand is more desirable for forage than for grain production. Forage sorghums are also sometimes planted broadcast or in narrow rows with a wheat drill and used as a hay crop. The usual rates for broadcast plantings are from 30 to 90 pounds of seed to the acre, depending upon the moisture supply in the region.

In the Wheat Belt where grain sorghums are being more widely grown instead of wheat or used as emergency crops where the wheat crop fails, wheat machinery often is the only type available. Here you can plant with the drill in

Improve Your Marksmanship

I. J. TARGET SEALED 8 REVOLVER

Model 68. High grade construction, with quick smooth action. Hi-Hold grip. Ideal for target practice, campers and trappers.

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Corns

SUPER-FAST RELIEF!

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14-inch rows or in 28-inch rows by stopping up every other hole in the drill. Ten to 20 pounds of seed to the acre is used. The deep-furrow type of drill is best, as it puts the seed down in contact with moist soil, prevents damage from soil blowing, and protects the young, tender plants.

An early cultivation or two can also be done to better advantage with a harrow when the plants are small. If the season turns out rainy, weeds may become a problem, and chemical control measures may become necessary. Thousands of acres are being successfully treated with 2,4-D for weed control in close-drill sorghum plantings.

If combine sorghums are to grow in close-drill plantings, it is better to use early varieties which have fewer leaves, less vegetative growth, and lower water requirement. Double Dwarf Sooner milo, early Combine kafir strains, and early Red Seeded Combine varieties are the best now available.

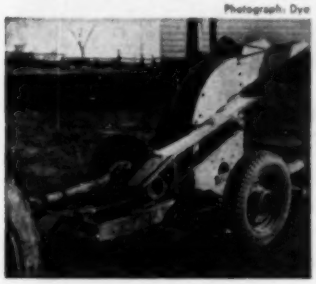
An interesting new sorghum-breeding development is now in progress at the Texas station. The idea is to create small-growing sorghums of a grain-grass type somewhat resembling wheat and oats—sorghums that can be planted in narrow rows with a small grain drill. They would be short, small-growing, fine-stemmed, tillering varieties with a high ratio of grain to forage, and of quick maturity. Thus they would be adapted to short-season growth or late planting, and be saving of both time and moisture in producing a grain crop. END

Power take-off runs his mill

Albert Rolf got tired of belting up his hammer mill to run in all kinds of weather and decided to investigate the possibility of powering it with the power take-off. Besides that, he was feeding cattle on two locations and needed either two hammer mills or one portable one.

Rolf's welder turned out a machine which solved his problem. This hammer mill is run by the power take-off and is portable (see picture). From the power take-off, which turns a drive shaft with double universal joints, power is transmitted into the differential of a 1935 car. From there, four V-belts take the power on to the hammer-mill pulley. The drive shaft from the power take-off is a square tube which telescopes over a square rod. This makes the machine adaptable to any model of tractor and also permits belt tightening. The entire unit is mounted on a sturdy frame. Rolf's farm is in Atchison County, Missouri.

Photograph: Dye



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Low in cost . . . easy to apply — Use on new construction—over old wood shingles—or over composition roofs. Ask your lumber dealer about it . . . he's waiting to help you. Or write us direct for free folder on Roofing and Siding.

Ask about our newest siding shingle, "Century" NU-GRAIN.

*You can get "Century" Roofing Shingles in these colors: Spanish Red, Surf Green, Dell Green, Gray Duoface, and Black. "Century" Siding Shingles come in Sun-Glo Buff, Shell White, Sea-Gull Gray, and Fathom Green.

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Farm Equipment Division — Cedar Rapids, Iowa

Livestock

Antibiotics to pigs on pasture?

What role do antibiotics and vitamin B_{12} play in rations for pigs on pasture? Experiments at the Minnesota Experiment Station show that fortifying a good ration with an aureomycin-and-vitamin B_{12} supplement for pigs on an excellent alfalfa-bromegrass pasture increased the daily feed consumption and daily rate of gain of pigs. However, it did not appreciably reduce the feed requirement per unit of gain.

In one of two trials, aureomycin-B_{12}-fed pigs required 3.4 percent less feed per unit of gain than those getting the control ration. In the other trial this difference was 8.3 percent. Pigs fed the antibiotic-and-B_{12} supplement reached 200 pounds about 2 weeks earlier than those fed a good control ration without the antibiotic and B_{12}.

This saving in feed was not significant and it would hardly cover the cost of the aureomycin-B_{12} supplement. However, the fact that the supplemented lots reached 200 pounds approximately 14 days ahead of their controls was considered important.—*R. R., Minnesota.*

Self-feeding runt pigs

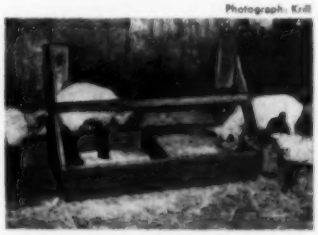
Swine producers who self-feed their pigs generally believe that porkers do a good job of balancing their own rations. This may be true of some pigs, but not runty ones. A recent experiment at Michigan State College indicates that runty pigs may pick a good ration for their own good, but it isn't necessarily the cheapest for the farmer.

In this experiment, 20 uniform runts were selected and divided into 2 lots—10 to a lot. A separate ration was prepared for each lot. One lot was fed a free-choice of shelled corn in one feeder and a high-protein supplement in another. Terramycin and vitamin B_{12} were added to the supplement.

The other lot of 10 pigs got corn and supplement already mixed. They had to take the mixture without any choice of how much supplement or corn they ate. This mixture had 72 pounds of corn and 28 pounds of supplement. The same supplement was used for both the ready-mixed and the free-choice rations.

Records were kept on gains for 8 weeks. The rate of gain was about the same—runts on the complete feed gained .97 pound per day, while runts on free-choice

Photograph: Krill



Handy feeder keeps granulated salt and minerals before ewes and lambs at all times for George Ziegler, Columbiana County, Ohio. Feeder holds several days' supply

gained an average of .99 pound per day.

However, the average daily feed intake was quite different. Pigs on free-choice averaged 2.75 pounds of feed a day while those on the complete feed ate only 2.01 pounds a day. The pigs on free-choice required 2.76 pounds of feed to make a pound of gain, while those with the complete feed needed only 2.08. And each pound of gain by the free-choice pigs represented the consumption of .46 pound of protein as compared with .35 pound of protein for those fed the complete feed.—*W. S., Michigan.*

Good pasture from broom-sedge land

Broom-sedge land can be made to grow good pasture, according to Paul Polston, who farms in Lawrence County, Missouri.

Polston got a good stand of tall fescue and Ladino clover on 5 acres of broom-sedge land by following these steps:

1. He plowed under 5 tons of manure per acre.
2. On March 3, he worked in 1,000 pounds of rock phosphate with 300 pounds of 4-24-12 fertilizer per acre.
3. On March 27, he seeded 4 pounds red clover, 8 pounds of tall fescue, 1 pound of Ladino clover, 4 pounds of alsike clover, 5 pounds of orchard grass, and 1 bushel of oats per acre.
4. A total of 100 pounds of 0-47-4 fertilizer per acre was drilled with the seed.

Total cost of treatment and seeding was $35.87 per acre.

Here is what Polston received from the 5 acres the first year:

Twelve head of calves were carried on the field all fall, and 18 head of cattle were on it from the middle of April until May 17. Then 25 head were put on and stayed until May 30. They were all taken off, and on June 9 the growth was cut with a grain binder and removed from the field. Twelve cows were put on the field, but it still required two clippings before August. The cows were on Sudan grass during August. When they were put back on the 5 acres of fescue and Ladino the first of September, they gained 13 pounds of milk per day.

Except for the month of August, the cows were on this 5-acre pasture from mid-April until October. Milk checks show 47,416 pounds of milk were sold during the January-to-November period, 12 calves were raised to 300 pounds each, and 450 pounds of seed was threshed from this pasture.

Pasture valuable swine feed

Pigs are not normally considered grass-eating animals. But a practical feeding test by a Michigan hog raiser holding a grass-day program last June proved to most of the hog raisers attending that pigs will put on a lot of gain from high-quality legume pasture.

Thirty days before the grass-day event, Ralph Cook, Calhoun County, Michigan, divided 22 pigs averaging about 50 pounds into 2 lots. One group was kept in a dry lot, the other 11 allowed to run in legume pasture. Both groups got free-choice ground feed, shelled corn, and 35-percent protein supplement.

Pigs on the pasture ate but 79 pounds of supplement compared with 196 pounds for those in the dry lot. The average pig gained 36 pounds in the dry lot versus 42 pounds for pigs on pasture. Feed cost for each 100 pounds of gain was $9.95 on pasture and $11.33 in the dry lot.

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For best results in the use of this product, read carefully the circular enclosed in the package. Treat promptly after accurate diagnosis. It is advisable to obtain a laboratory diagnosis, especially in intestinal coccidiosis, fowl cholera, pullorum disease and coryza.

If you cannot get SULMET Sodium Sulfamethazine *Lederle*, please write us. We will gladly send upon request a new edition of "Control of Poultry Diseases."

*Reg. U. S. Pat. Off.

Poultry Department

LEDERLE LABORATORIES DIVISION

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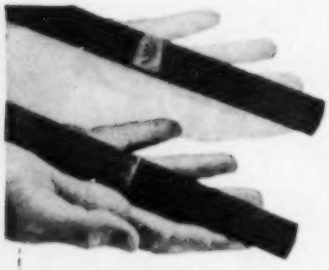

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How to prevent and treat

Bloat

By Dr. John B. Herrick, D.V.M.

Bloat is on the upswing. The increased use of pasture mixtures which include a high percentage of clovers has been one of the chief causes. No herd of cattle or sheep is immune. You may have gone years without bloat trouble—then suddenly it hits.

What causes bloat

A quick look into the rumen (paunch) of a cow or sheep gives us a better picture of the cause of bloat. The rumen is a large fermentation vat containing millions of microorganisms which break down the coarse fibers of roughages. During this breakdown, gases are liberated. These gases are largely carbon dioxide, methane, hydrogen, nitrogen, and several others. Normally, these gases are eliminated by absorption into the blood stream, passing out through the lung, or by belching.

When any of these eliminating processes are stopped, you can expect bloat. Just what stops these functions isn't exactly known. There are several theories. However, death probably results from a combination of suffocation, due to the pressure on the respiratory tract, and the absorption of toxic gases.

How to prevent

Here are some recommendations for preventing bloat:

1. Don't turn grass-hungry animals on soft, succulent pastures and let them eat all they can hold. Fill them up before turning them out on fresh grass and leave them there for a short time only.
2. Be extremely careful when pasturing legumes in the prebloom stage.
3. Feed hay before pasturing. This has been accepted as one of the best procedures for preventing bloat on legumes. Pasturing at night or feeding of hay at night helps some.
4. Use a mixed-seed pasture mixture, containing at least 50 percent grasses.
5. Provide water and salt for animals while they graze.
6. Transfer cud from animals not bothered with bloat to those which are affected.

Treatments for bloat

Old stand-bys for treating bloat consist of a gag in the mouth, cold water on the flanks, and oral administration of materials, such as soapsuds and sour milk, to interrupt gas fermentation. In emergencies, a stomach tube can be used to allow the gas to escape. Or the rumen can be tapped to allow the gas to escape. Such materials as formalin, turpentine, stock dips, and copper sulfate help some but will also kill many of the essential bacteria in the rumen.

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"In Korea," says Captain Harvey, "we stopped aggression by *united* strength. *You* were helping—every time you bought a Defense Bond. Because your Defense Bonds were doing more than just helping keep you and your country financially stable. They were backing *us* up in the field with *American production power*.

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A new treatment

Surface tension in the rumen is decreased in animals suffering from frothy bloat. This is due to uniform mixing of toxic gas bubbles throughout the mass of food. In view of this, veterinarians of one laboratory have injected a surface-tension-increasing agent, containing a highly polymerized methyl silicone, directly into the rumen. It has also been given as a drench. The recovery rate was around 80 percent when given as a drench and 95 percent when injected directly into the rumen. This treatment has opened the way for a more effective and safe treatment of frothy bloat. It is already being used quite widely as an effective frothy-bloat treatment. The agent is handled by veterinarians only.

Many of the problems of bloat are unanswered, primarily on the prevention side. Until research finds a sure answer to bloat, the proper pasture and cattle management is still the livestock farmer's best and safest bet. END

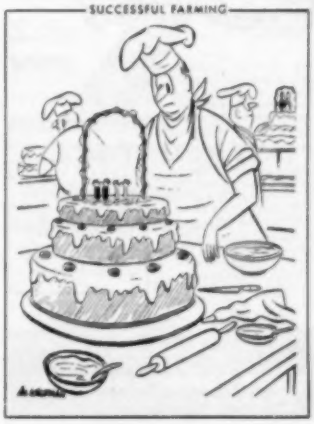
Tests feeds from low-fertility fields

Crops raised on fertilized, limed land do *not* enable a cow to produce more or be healthier in reproduction than do crops raised on run-down, low-fertility soil.

That's the opinion of Dr. George Ward, Michigan State College dairyman. He reports the result of an experiment now in its fifth year. In the test, 7 pairs of half sisters are being used—4 pairs of Jerseys and 3 pairs of Holsteins. One of each pair gets timothy-brome hay, corn, oats, and soybeans—raised on fields low in productive fertility.

The mate gets the same feeds grown on neighboring fields that have been limed and heavily fertilized. The 10-year experiment was started to find out whether cows that live their whole lives on run-down farms would be crippled in production and in reproduction by the character of the feeds grown and fed. Thus far, the answer is "no." So you need not be discouraged if you're building up your soil—your cows will stay by you in the process.—*W. S., Michigan.*

SUCCESSFUL FARMING



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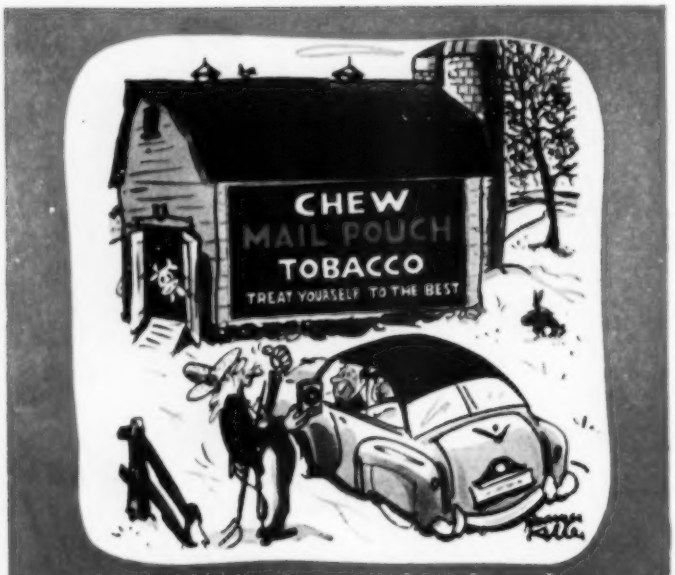

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Veterinary

Go slow with copper sulfate!

Not long ago we saw some sheep which were pretty sick after being poisoned by copper. The trouble was due to adding copper sulfate, or blue vitriol, to a mineral mixture for "worming" the animals. The minerals were fed free-choice, and even though only a small amount of the poisonous sulfate was added, the sheep still ate too much of it over a period of several weeks.

Cattle also are quite susceptible to copper poisoning, and often are affected when the sulfate is added to drinking water. This is true even when tiny amounts are present, as copper has a cumulative effect and keeps piling up in the tissues if the animals get it over a long period.

Caustic potash wasn't used right

The picture below is a good illustration of what sometimes happens when caustic potash is improperly used for dehorning calves. The chemical was correctly used on one horn and a good job resulted. Too little was used on the other side, allowing the horn to develop normally as shown.

When using caustic potash, rub the caustic stick in a circular motion on the horn bud until blood begins to ooze through the burned area. Observing this rule alone generally results in a smooth dehorning job without unnecessary destruction of surrounding tissues.

Watch those cockleburs!

Did cockleburs show up in some of your fields and pastures last year? If so, be on the lookout for them this spring. They're poisonous and fully capable of killing livestock. Cockleburs are most dangerous at this time of year when in the two-leaf stage. Mature plants have a bad odor and seldom are eaten by farm animals. Pigs are the most common victims, but lambs and calves also have been killed by eating young cocklebur shoots.

It was acetonemia

Recently an owner complained that one of his cows had dropped off in production with no apparent cause. She ate well and didn't appear sick. However, her production was far below that of former

years and she seemed to be drying up a couple of months after calving.

Investigation showed acetonemia was to blame for the lowered production. After treatment, the animal staged a remarkable comeback in a short time. This is a reminder that acetonemia doesn't always make cows appear sick. Many "borderline" cases of this disease are easily missed.

Chickens are disease carriers

We recently visited a farm where the owner was having a hard time establishing a certified Bang's-free herd of cattle. We personally felt that he was much to blame because his chickens had the run of the place. They moved back and forth between the cattle and a bunch of hogs that were untested for Bang's disease.

Whether it's Bang's or some other disease, it can't be effectively controlled when chickens are allowed to act as carriers of the germs.

What's the trouble here?

These chicks (pictured below) came from a batch of 500 purchased from a reputable hatchery when 1 day old. They were moved into warm, dry quarters, and did well for a few days. Then they started to sicken and die at the rate of 15 or 20 daily. Chicks were droopy and showed signs of a white diarrhea before dying. At other times they died without showing any previous indications of sickness.

Nearly half of the chicks died within 10 days, and many of those still living showed signs of an unhealthy condition. The owner suspected the trouble was due to the chicks' eating large amounts of the ground corncobs used for litter.

These symptoms are a sign of colds, diarrhea, coccidiosis, improper feeding, bronchitis, Newcastle disease, pullorum, or laryngotracheitis. Can you name the trouble?

In this case it happened to be pullorum. The chicks were believed to be diseased when hatched, for eggs were secured from an infected flock. Regular testing had been done, but the owner returned reacting birds to the flock instead of selling them.

There is no satisfactory treatment, although several of the sulfa drugs are helpful in combating the disease. Losses often stop suddenly after part of a flock has been lost. The average owner will do well to depend on a two-part program of prevention rather than remedies after an outbreak has occurred. He can:

1. Be sure chicks have been hatched from eggs obtained from flocks that have been blood-tested for pullorum and shown free of the disease.

2. Raise chicks in disinfected brooder houses and run them on ranges apart from older birds where no poultry has been allowed for at least two years.

Photographs: Bailey

What caused these chicks' droopy condition?

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Good pasture is a bargain

By Earle Titus

Through experience, my son, Robert, and I have learned that a one-pasture program means hungry cows and a low milk check on our farm in Broome County, New York. We've found out, too, that a proper combination of forages will provide plenty of high-quality grazing all season and keep milk going into the cans and money in the pocket.

It used to be that our milk production would fall off close to half from May through August. So 7 years ago we started to do something about it. In 1945 we began to improve our pastures and raise pasture supplements to try to keep that summer slump from hitting us so hard. A quick rundown of our milk-plant weights for the pasture months of 1945 and for 1950 will give you evidence of the high dividend-paying results:

	1945 pounds	1950 pounds
April	26,907	29,577
May	31,815	36,269
June	27,794	33,665
July	23,604	31,141
August	20,576	29,845
September	17,533	26,906
October	17,440	24,945

Our Holstein milking herd remained at about 29 head during that period and it's been pretty well equally divided between spring and fall freshening. We give most of the credit for this decided increase in milk production to better pastures. There's been some general improvement, too, in production through the use of artificial breeding—perhaps up to 2,000 pounds of milk a month. All replacements are raised on the farm, and we now have 29 head of young stock. The herd average has reached 429 pounds of butterfat—a gain of 100 pounds per cow in 7 years through better pasture and herd management practices.

Not only are the milk checks bigger, but we don't have to pay out such a large share of this income. We say good pasture is a bargain and figure it this way: Grain at $70 a ton costs $3.50 per hundred-pound bag. Good pasture, according to our county agent, Cleon Barber, costs from 35 cents to $1.25 for an amount equal to a bag of grain, depending on the kind of pasture.

To us it's just plain sense to get as much feed as possible from pasture. But poor pastures aren't such a bargain. They still have the same fixed costs—the use of the land, taxes, fencing, and the like. Poor pastures, of course, cost less for seed and fertilizer, but they cost a lot more in lost summer milk production and in extra labor to put up and feed hay to supplement them.

We used to barn-feed roughage quite heavily during July and August, but we don't have to any more with plenty of good pastures from April or May until frost. The cows just won't eat hay in the barn while they're still getting really good pasture. This was true as late as November 2. The barn feeding then consisted of 30 pounds of corn silage per day per cow and about 1 pound of grain for every 4 pounds of milk. In fact, the cows didn't eat anything but grain in the barn from May 1 until September 15 when corn silage was being put in the silo.

We pasture practically all of the useful land on our 154-acre farm. Even all the cropland is seeded so it can be pastured. To date, orchard grass and Ladino clover on level land have produced the most and the best, and on the hillside pastures birdsfoot trefoil has proved itself. On each acre of this ground from which brush was taken off, 6 pounds of Empire trefoil and 6 pounds of timothy were planted.

A mixture of orchard grass and Ladino (8 pounds orchard grass and 1½ pounds of Ladino per acre) is higher yielding during the whole season than other long-lived pasture mixtures. Its long life and high production make the cost low, though how long it lasts depends quite a

Late pastures help Earle Titus keep his production costs down. Since this pasture system was started, cows have reached an average of 429 pounds of butterfat. This is a gain of 100 pounds per cow in the 7 years the pasture program has been used on this farm

Wonderful Success

Raising Baby Chicks

Mrs. Rhoades' letter will be of utmost interest to poultry raisers. Read her experience: "Dear Sir: I think I must be one of the very first to use Walko Tablets. Some 35 years ago when I started raising chicks I saw Walko Tablets advertised as an aid in preventing the spread of disease through contaminated drinking water. I tried a package for my baby chicks with happiest results. I have depended upon Walko Tablets ever since." Mrs. Ethel Rhoades, Shenandoah, Iowa.

Danger of Disease Among Baby Chicks

Readers are warned to exercise every sanitary precaution and beware of infection in the drinking water. Baby chicks must have a generous supply of pure water. Drinking vessels harbor germs. Drinking water often becomes infected with disease germs and may spread disease through your flock before you are aware. Use preventive methods—use Walko Tablets. For over forty years thousands of poultry raisers have depended upon them. You, too, can rely on Walko Tablets as a valuable antiseptic to aid in preventing the spread of disease through contaminated drinking water.

You Run No Risk

Buy a package of Walko Tablets today at your druggist or poultry supply dealer. Use them in the drinking water to aid in preventing the spread of disease through contaminated water. Satisfy yourself as have thousands of others who depend upon Walko Tablets year after year in raising their baby chicks. You buy Walko Tablets at our risk. We guarantee to refund your money promptly if you are not entirely satisfied with results. The Waterloo Savings Bank, the oldest and strongest bank in Waterloo, Iowa, stands back of our guarantee. Sent direct postpaid if your dealer cannot supply you. Price 60c, $1.20, $2.50 and $4.00.

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Scab teats. Injured teats — Dr. Naylor Dilators furnish soft, antiseptic protection to delicate lining of teat canal. Keep end of teat open while tissues heal. At Drug and Farm stores.

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Morris 16, N.Y.
Large pkg. $1.00
45 Dilators
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Dr. Naylor's MEDICATED Teat Dilators

bit on fertilization and management. Practically all of the pastureland gets manure one year, 0-20-20 the next, and lime whenever needed.

We found that one problem with orchard grass is that it grows fast and if not controlled becomes unpalatable and low in feeding value. Moreover, extra-tall growth knocks out the Ladino. So we plant about a half-acre per cow on ground that's easy to plow and mow. We usually keep it short for grazing (8 to 10 inches) and clip it if it gets ahead of the cows.

The Sudan grass (planted 35 pounds to the acre) produces a lot of feed from late July until frost when we need it most. Although it's a one-season crop, we're sure it's much cheaper than extra grain and hay.

> **Never bear more than one trouble at a time. Some people bear three kinds: all they have ever had, all they have now, and all they expect to have.** —*Edward Everett Hale*

Our pasture management may look a little complicated, but we believe that it has to be to make the most efficient use of all the growth. Here's an example of our pasture rotation: First—on April 30—we turned the cows on permanent pasture which has 2 acres of orchard grass and Ladino clover, 5 acres of birdsfoot trefoil, and about 35 acres of seeded permanent pasture. The cows were here for 17 days, then went on 3½ acres of ryegrass which was seeded in July with corn. They were here for 12 days, then back in permanent pasture for 19 days; next in 6½ acres of oats for 12 days; next (July 1) in the aftermath of orchard grass and Ladino clover.

The first crop of orchard grass-Ladino clover was put in the silo between June 11 and 21. They were in this aftermath 14 days, then back in the oats for 2 days; next in about 5 acres of Sudan grass for 5 days; then back on aftermath 3 days; next in oats 4 days, then back in Sudan 3 days; then in aftermath which was increased as fast as the grass started growing after cutting each field of hay.

We know that these pastures are bargains in feed. They produce an abundance of feed over a long period. Our pastures will make more milk for less money in the high-cost times ahead. **END**

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Farmer's Trading Center

Advertisements using illustration or display (large) type, $6.35 per agate line. This classification is open to baby chick, poultry, livestock, pet stock, and schools. Straight classified (no illustration or display type)—20 word minimum—all classifications—80 cents a word. Write Successful Farming, Des Moines 3, Iowa.

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Clover Valley Chicks. U. S. Approved-Pullorum Passed—from one of America's oldest reliable hatcheries. Since 1906 a leader in high quality, money-making chicks. Play safe with your investment—send us a trial order. Barred, Buff, White Rocks; S.C. Reds; Large type White Leghorns. Wyandottes, Orpingtons. Australorps; Minorcas; Giants. New Hampshires. Brown Leghorns; also cross breeds; sexed chicks, pullets or cockerels, turkey poults, ducklings. Write for low prices, details of our guarantees, free Catalog and book on poultry management. Clover Valley Hatcheries, Box 39, Ramsey, Indiana.

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Raise pheasants on the $100 week plan. Little capital and space can make you independent. Free details. Great Central Game Management System, Columbus 8, Kansas.

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Decorating advice. Stores offering **Successful Farming's** home planning service are listed on page 122. Visit store nearest you for help with decorating problems.

BABY CHICKS, spec. $4.90 See Below

Sensational prices on Hayes Grade AA chicks! World-famous for their excellent quality—both for meat and eggs. Winners of many egg laying contests. Bred for high livability. Will grow faster, live better, produce more eggs. 95% sexing accuracy guaranteed. You pay postage and C.O.D. fees. ORDER TODAY . . . avoid disappointment. Prices subject to change without notice. Orders for less than 100, add 1¢ per chick. AAA Grade chicks—from our best laying flocks are only 3¢ per chick more. Any you might lose the first two weeks, replaced free.

GRADE AA	Str. Hatch Per 100	Males Per 100	Pullets Per 100
Austra-White, White Leghorns	11.90	4.90	24.90
New Hampshires, Barred, White, Buff Rocks, White Wyandottes, S. C. Reds	11.90	11.90	15.90
Mixed Heavies	9.90	9.90	13.90

Mixed: May be all pullets, males or Str. Hatch—½ heavy breeds, per 100 . . . $8.90
Light Breeds for Broilers, mostly males, per 100 . $4.90
"AAA" Grade chicks 3¢ higher—all losses replaced first 2 weeks free. Free Poultry Circular. Send for it today.

SCOTT HAYES CHICKS, Order Office
DEPT. 157 UNION CITY, TENNESSEE

Keep *Successful Farming* coming your way. Each month in *Successful Farming*, you will find the kind of information that will help you increase your profits, make your farm work more convenient, and your farm living more comfortable.

BABY CHICKS, spec. $4.90 See Below

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"AAA" Grade chicks 3¢ higher—all losses replaced first 2 weeks free. Free Poultry Circular. Send for it today.

SCOTT HAYES CHICKS, Order Office
DEPT. 157 BLOOMINGTON, ILLINOIS

CORN CENTER DOIN'S

"He claimed he was the toughest thing in the barnyard 'til he ran up against that BFG Power-Curve tire."

When you use Power-Curve tires on your own tractor, you'll see how tough these B. F. Goodrich tires really are. Power-Curve tires have big, husky cleats that bite into the soil like a spade, give full shoulder-to-shoulder traction. Every turn of the wheel counts because Power-Curve cleats hold firm, reduce slippage. You get full power out of your tractor and save money on your fuel bills. Rugged Power-Curve cleats are evenly spaced so dirt flows down open channels. Power-Curve tires always come up clean with each cleat free to dig in and pull. And they wear longer because there's more rubber in the tread. Pick your toughest tractor work and hand it to Power-Curve tires—made by B. F. Goodrich, First in Rubber.

An advertisement of The B. F. Goodrich Company, Akron, Ohio

Farmer's Trading Center

Advertisements using illustration or display (large) type, $6.25 per agate line. This classification is open to baby chick, poultry, livestock, pet stock, and schools. Straight classified, (no illustration or display type)—30 word minimum—all classifications—60 cents a word. Write Successful Farming, Des Moines 3, Iowa.

FILM FINISHING

24 Hour Service—Super quality film developing. From any 8-exposure roll, either 2 "Clearbrite" prints or one Jumbo print from each negative—only 35c. Special enlargement coupon with every order. Write for free mailing envelope. Jumbo Photos, Box 965A, Minneapolis, Minnesota.

Dated One Day Service: Roll 8 (Giant Size) deckle edge in free album—40c; roll 12 exposure 55c—16 exposure 75c free album; free album, deckle edge reprints (Giant Size)—5c.
Camera Snaps, Box B-977, Oshkosh, Wis.

Quality with service. Jumbo Prints—8 for 35c. First quality, glossy, deckle-edged prints. 12 exposure roll 50c. No better prints at any price. Try us. You will never change.
May Studios, Dept. P-52, La Crosse, Wis.

Prompt Service—Finest Quality. Two prints (deckle-edge) from each negative on roll 40c. Reprints 3c each. For clear sparkling prints send to Welch Photo Co., 2418-36 Penn North, Minneapolis, Minnesota.

Two Sets Of "Deckledge" Prints with every eight exposure roll finished—40c. Very finest quality. "Deckledge" reprints 3c each. Jumbo reprints 4c each. Brown Photo Company, 1910-45 Emerson, Minneapolis, Minnesota.

Two beautiful prints from each picture on 8 exposure roll 35c. Thirty-one years of satisfied customers. Quick Service.
Lens Photos, Dept. C-10, Janesville, Wis.

12 Jumbos from roll developed 35c, 8 Jumbos 25c, 16 Jumbos 50c, 20 Jumbos 60c, 36 Jumbos 95c with this ad only.
Skrudland Photo, Lake Geneva, Wisconsin.

Two "Everbrite" prints from each negative on 8 exposure film, including coupon for choice of two plain or one colored framed enlargement, 37c. Reprints 3c each. Flash Foto Finishers, Box 1122-R, Minneapolis, Minn.

Fresh Free Roll Film . . . Send this ad with 10c for mailing. Sizes for 116, 120, 616 and 620 only. Limit one roll. Offer good for 30 days.
Free Film Co., St. Louis 14, Mo.

Fast-Same Day Service! 8 oversized prints in attractive Plastic-Bound Book only 35c; 12-50c; 16-60c. Satisfaction guaranteed. Free Exposure Guide with first order.
Picture, Box 899-M, Philadelphia 5, Pa.

Only 35c. Your roll developed and 8 finest quality enlarged prints. Pictures plastic bound in beautiful album. Trial offer, limited time. Daily service. Ball Studio, Dept. 5Z, Box 275, St. Louis, Missouri.

Only 25c for 8 beautiful enlarged prints from your roll or negatives. (Trial Offer). 16-50c. Quick Service. Money-back guarantee. Willard Studios, Box 3535N, Cleveland, Ohio.

12 Jumbos from roll, 35c, 8 Jumbos, 25c; with this ad.
E. Skrudland, Lake Geneva, Wisconsin.

Look—16 contact oversize prints, or 8 jumbos in album 35c. Coupon for 3—5x7 enlargements.
Owlphoto Co., Weatherford, Okla.

Beautiful enlargement from each picture on 8 exposure roll 35c. Cut Rate Photos, Dept. K-1, Janesville, Wisconsin.

LIVESTOCK

Registered and Non-Registered Wisconsin Holstein Calves—for higher production herds. Exceptional offering of choice Wisconsin Holstein Calves. Available in large quantities. Also some Guernsey and Brown Swiss. Vaccinated against shipping fever. Health sheet furnished. Well started—no milk required. Visitors welcome. Write or Telephone. J. M. McFarland & Sons, Watertown, Wisconsin.

Guernsey and Holstein Heifer Calves. Good, strong, carefully selected Guernsey or Holstein heifer calves, purebred, not subject to registry. $60 FOB, express car. Older calves higher, according to age. 10 to 35 delivered by truck on approval. Also a few Brown Swiss calves.
H. R. Lobdell, Mukwonago, Wis.

"Dairyland Calves" heifers from Wisconsin direct to you, via truck. Fine Guernseys and Holsteins for your approval. Various ages. William H. Leahy Jr., Box 23, Mukwonago, Wisconsin.

Phenothiazine Powders: Plain(100.00%), Drench (99.00%); 150 pounds $92.95; fifty, $34.95; 25, $20.49; ten, $9.49; five, $4.95. Prepaid. Guaranteed. Southside Chemical Company, Petersburg 5, Virginia.

Use Hampshire sires for big early maturing market-topping lambs. Free breeders list and information. American Hampshire Sheep Association, 72-8 Woodland, Detroit 2, Michigan.

Registered Berkshires and Angus Cattle Improved type. Farmer's prices. Write for details. Owen Stock Farms, Route 5, Spencer, Indiana.

Advertise to a million farm families through Successful Farming.

Blue-Ribbon Holstein heifers from Wisconsin's biggest and oldest dealer. Guaranteed and selected from proven Wisconsin herds—No Stock Yard Culls! Vaccinated for shipping fever. T. B. and Bangs tested. Health sheets and buyer references furnished. Special Offer! Walter Lehmann, Dept. 7, Box 53, Watertown, Wisconsin.

Free 114 page Veterinary Guide. Describes 95 farm animal diseases, newest sulfas, penicillin, etc. If no Peters dealer near you, write Peters Serum Laboratories, 815C McGee, Kansas City, Mo. (Peters family, world's first hog serum manufacturers.)

"How To Break and Train Horses"—A book every farmer and horseman should have. It is free; no obligation. Simply address Beery School of Horsemanship, Dept. 205-C, Pleasant Hill, Ohio.

Wisconsin Holstein and Guernsey Springers and Bred Heifers from selected herds. TB-Bangs tested. Our 40 years experience guarantees order shipments. Klein's Dairyland Acres, Tel. 3700, Menomonee Falls, Wisconsin.

Wisconsin Holstein and Guernsey Heifers and Calves for sale. Delivered on approval. James E. Welch, Mukwonago, Wis. Phone Eagle 778.

Oakland Guernsey Farm, Mukwonago, Wisconsin, offers 20 choice high grade Guernsey heifers bred and open. Best type, and breeding. Tested.

Yorkshire Hogs. Imported English and American breeding. High-winning herd major State Fairs 1948—1951. Circular.
Yalehurst Yorkshire Farm, Peoria, Ill.

TURKEYS

Turkey Growers Make More Money—up profits 50% simply by raising sexed poults! Write today for all the facts. If your trade demands small sizes—raise sexed hens. If you can sell large birds, raise sexed toms. Did you know that toms can be raised for 7½c per pound less than hens? Let us send you actual figures. We can supply sexed poults (either sex) Broad Breasted Bronze, White Hollands, Beltsville Whites. Also, Straight Run (unsexed) poults available, of course. Inquire now. DeWitt's Zeeland Hatchery, Zeeland, Michigan.

Raise Turkeys The New Way. Write for free information explaining how to make up to $3,000.00 in your own backyard. Address National Turkey Institute, Dept. 4, Columbus, Kansas.

'Kirbypoults' are your answer for a more profitable turkey crop. U.S. Approved-Pullorum Clean. Broad Breasted Bronze batched from Browning U.S. Certified stock. Excellent market quality. Broad Breasted White Hollands from Rivervene R.O.P. Farm. Also, Beltsville Small Whites. Truck delivery on large orders. Free turkey catalog. Write today! Kirby Hatcheries, Inc., Box 28, Urbana, Ohio.

Beltsville Whites available year round. We specialize in small Whites for turkey broilers. Get high livability poults with profit-making ability. Write for latest raising and marketing information. Also Griffin Bronze, Chaumiere White Hollands. Central Farms Hatchery, Box 8-11, Zeeland, Michigan.

HOBBIES

Leathercraft. Everything needed by beginners, advanced hobbyists and professional leatherworkers. Largest stock of supplies in U. S. Moderate-priced tooling leathers, top quality calfskins, tools, supplies, kits. Send 10c for Big Catalog. J. C. Larson Co., 820 S. Tripp, Dept. 2063, Chicago 24.

Your mail sales grow each time you Go Classified in Successful Farming.

DAIRY GOATS

Profit and Health from dairy goats. Monthly magazine tells how. 12-month subscription $1. Dairy Goat Journal, Columbia, C25, Mo.

MISCELLANEOUS

Outdoor Toilets, Cesspools, Septic Tanks cleaned, deodorized with amazing new product. Just mix dry powder with water; pour into toilet. Safe, no poisons. Save digging, pumping costs. Postcard brings free details. Burson Laboratories, Dept. B-22, Chicago 22, Illinois.

Cesspools, Septic tanks, Outdoor toilets-Cleaned-Deodorized. Amazing Product Saves Digging. Details. DigNoMore Company, Dept 24, 2611 Harriet, Minneapolis 8, Minn.

Don't Feed English Sparrows. Save feed. Make your own trap and catch thousands. Write for details.
Roy Vail, La Grange 1, Indiana.

MARTI'S BIG Egg Type WHITE LEGHORNS

DAY OLD & STARTED PULLETS

Have Champion Layers of Large 25 to 26 oz. eggs per dozen. Bred from R.O.P. Foundation Stock. 3 choice matings. Big Early Discounts. New Low Prices. Write for catalog today. U. S. Approved — Pullorum Passed.

Day Old Broiler Cockerels $2.00

MARTI LEGHORN FARM, Box 29, Windsor, Missouri

New, Quick, Easy Way To CLEAN CLOGGED FIELD TILE

FARM-ROD cleans field tile, septic tank laterals of roots, mud, silt, other debris . . . right from your tractor seat! Eliminates wet spots, increases production. Cleans one to several hundred feet from one opening, 3" diam. up. Costs little. Good for years.

- No needless digging
- Equipped with power take-off or
- Can be turned by hand
- Simple, easy to use

FREE! —Get Prices, illustrated folder

ROTO-ROOTER CORP. 301 University Ave., S-13, Des Moines 14, Iowa

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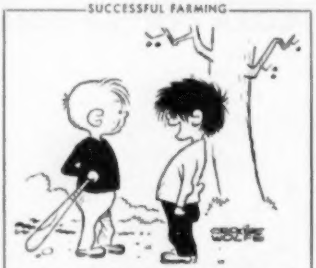

"Every Saturday I go to the barber and he gives me a dime to go away!"

BOOTH CHICKS

HATCHED THE YEAR ROUND

STARTED PULLETS $30 PER 100 F. O. B.

For MORE Eggs—TOP Profits get our Big Money Making Strains. For 30 years one of America's finest trapnest, pedigree breeding farms. Thousands 300-342 Egg Pedigreed Males.

6 BREEDS & Assorted $7.90 per 100 up postpd.

Write Today—Free 4 Color Catalog!

BOOTH FARMS, Box 175, Clinton, Mo.

calling all Livestockmen!

New developments in feeding, breeding, animal health, cutting choretime are coming fast. For down-to-earth information on these developments—for practical ideas which you can use in your cattle, hog or sheep operation—read the nation's foremost livestock journal. Send check or cash today—**60 issues only $3.00.**

SPECIAL OFFER—While they last, we'll include **Magnetic Breeding Calculator** at no extra cost. Supply limited, subscribe today.

Breeder's Gazette, Dept. SF-1, Spencer, Ind.

10 EXTRA with EACH 100 Ordered — **$6.90 PER 100 LEFT-OVER HEAVIES** — Good Chicks-No Extras

STRONG, HEALTHY CHICKS

Barred & White Rocks, New Hampshires, per 100 $10.95
White Leghorns, Austra-Whites, S.C. Reds, White Wyandottes, Rock X Hamps, Hamp X Rocks, Wyan X Hamps, Cornish X Hamps, Cornish X Rocks, per 100..$11.95
Write for complete price list on sexed chicks and breeds not listed. All chicks shipped plus postage, from U. S. Approved, Pullorum Passed flocks. Prices subject to change without notice. **ORDER NOW. DON'T DELAY!**
Mt. Healthy Hatcheries, Dept. SF Mt. Healthy, Ohio

FREE BERRY'S NEW POULTRY BOOK

Gorgeously illustrated, describing **DAY-OLD** and **4-WEEK CHICKS.** 30 varieties, sexed or unsexed. **AMERICA'S FINEST;** also Ducks, Geese, Guineas. **ORIGINAL BERRY'S FARM,** for over 30 years. Beautiful book and **LOW PRICE LIST FREE,** stamps appreciated.

BERRY'S POULTRY FARM, Box 194, Clarinda, Iowa

Your business will grow when you advertise in the Farmer's Trading Center.

FREE COLONIAL CHICKS POULTRY BOOK — **CHICKS ON CREDIT**

For 22 years MORE people have bought Colonial Chicks than any other kind! Save up to ½ on all leading breeds and crosses. Rich in 300 egg blood. Day-old or started. Credit plan allows 4 months to pay! 4-COLOR CATALOG FREE. Write nearest address.

COLONIAL POULTRY FARMS
Pleasant Hill, Mo; Lamar, Colo; Faribault, Minn; Lexington, Nebr; Sweetwater, Tex.

BABY CHICKS, spec. $4.90 See Below

Sensational prices on Hayes Grade AA chicks! World-famous for their excellent quality—both for meat and eggs. Winners of many egg laying contests. Bred for high livability. Will grow faster, live better, produce more eggs. 95% sexing accuracy guaranteed. You pay postage and C.O.D. fees. ORDER TODAY . . . avoid disappointment. Prices subject to change without notice. Orders for less than 100, add 1¢ per chick. AAA Grade chicks—from our best laying flocks are only 3¢ per chick more. Any you might lose the first two weeks, replaced free.

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"AAA" Grade chicks 3¢ higher—all losses replaced first 2 weeks free. Free Poultry Circular. Send for it today.

SCOTT HAYES CHICKS, Order Office
DEPT. 157 MINNEAPOLIS, MINNESOTA

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SCOTT HAYES CHICKS, Order Office

DEPT. 157 VANDALIA, ILLINOIS

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Rural Telephones. Modern, Hand-set wall and cradle telephones, standard installation accessories, etc. Immediate delivery. Guaranteed to give clear transmission in town or on long rural lines. Free bulletin! Farm Telephone, Dept. 108, Rogers Park Station, Chicago 26, Illinois.

Tired of being kicked around? Buy a Basler Bros. Cattle Gentl-Izer today. $12.95 ppd. Pride (Hybrid) Company, Dept. SC, Glen Haven, Wisconsin.

Will Buy Steam Traction Engine, Thresher Catalogs, literature, etc. Pertaining Steam-Powered farm machinery. Ted Middleton, 612 W. 4th, Aberdeen, Wash.

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Government Surplus 200 ampere 28 volt DC generators. Use for electric arc welding. $33.00. Free information.
Lewis Short, Burrton, Kansas.

Concrete Blockmaker—Daily capacity 100 blocks. Complete equipment $19.95. Write Jack-Sun Manufacturing, Dept. SF, 1300 East 59th, Kansas City, Missouri.

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Interlocking Fence Co., Box 35, Morton, Ill.

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Strawberry Plants—Superfection Everbearing 100-$3.00 Gem, Streamliner Everbearing 100-$2.00, 500-$9.00. Dunlap, Beaver, Robinson 200-$2.00, 1000-$6.00; Premier, Temple, Fairland 200-$2.25, 1000-$10.25. 20 Mammoth Rhubarb or 50 Asparagus $1.00. 15 Concord or Caco Grape $1.50. 25 Cumberland or Latham Raspberry $2.00. Yellow Jersey or Nancy Hall Potato Plants 100-$1.00, 1000-$6.00.
Rider Nursery, Farmington, Iowa.

Certified Plants, Pay Postman—Frostproof Cabbage, Broccoli, Brussels Sprouts, Cauliflower, Collards, Onions, Pepper, Tobacco, Eggplants. 200, $1.25; 500, $1.75; 700, $2.25; 1,000, $2.75; 5,000, $12.50. Sweet Potatoes, $5.50 per thousand. Leading varieties, mixed as wanted, moss packed.
East Texas Plant Co., Ponta, Texas.

King Ranch Bluestem, Blue Panic, and the new Buffel Grasses, seeding details on these and other good pasture grasses mailed promptly.
Guy Hutchinson, Uvalde, Texas.

100 Violets Collected, Yellow, White, Blue, all blooming size. Only, $1.99 Postpaid. Order today. Savage Farm Nursery, Route 2, McMinnville, Tenn.

Did you know Successful Farming has a greater percentage of subscribers living on farms than any other major farm publication? To reach farm families, advertise on these pages.

Vegetable Plants—Hundreds of miles closer. Tomato—Rutgers, Pritchard, Marglobe, Stokesdale, Greater Baltimore. $3.00—1000. 10 in. Special $4.00 Cabbage—Marian Market, Golden Acre, Wisconsin Globe, Green Acre, Wisconsin All Season. $2.00—1000. Sweet Potato—Yellow Nancy Hall, Red Porteans. $3.00—1000. Mixed as wanted. 500—$2.00. Phone 3-2546. Cummings Plant Farms, Owensboro, Kentucky.

Send No Money. Pay Postman. Certified frostproof Cabbage, Onions, Broccoli, Collards, Cauliflower, Brussels sprouts, Tomatoes, Peppers, Eggplants. Mixed as wanted. Moss packed. 100—60c 200—85c 300—$1.10. 500—$1.25; 700—$1.75. 1000—$2.00. Transplants: 100—$1.00. 1000—$7.50. Cherokee Plant Farm, Troup, Texas.

Certified tomatoes, peppers, eggplants, frostproof cabbage, onions, broccoli, moss packed. 100—$1.00. 500—$2.00. 1000—$3.00, postpaid. Mixed any way. Prompt shipments. Transplants 100—$1.25. 500—$4.25; 1000—$7.50.
Star Plant Farm, Ponta, Texas.

Heavy 2 year shrubs 50c. 4-5 ft. fruit and shade trees 50c. Canada Red Rhubarb 35c. All prepaid. Complete line of nursery stock at bargain prices. Free catalog.
Woodburn Nursery, Ottawa, Kansas.

World's earliest corn, foot tall, roasting ears in 25 days, originated by Indians of northern Quebec. 3 ounces $1.00 postpaid.
William Martin, Leesburg, Va.

RABBITS

A Practical Beginning To Successful Rabbit Raising. 48 Page Illustrated Booklet. Dime. American Rabbit Breeders Association. 40 AR&CBA Bldg. Pittsburgh, Pa.

Raise Rabbits, Ready Market, food, fur. Beginners Manual 25c, journal year $1.00, sample dime. Standard Rabbit Journal, B-241-5, Milton, Pa.

Make Big Money! Raise Chinchilla Rabbits. Profitable Cash Markets Supplied for your protection. Write Today! Rockhill Ranch, Sellersville 9, Penna.

Earn Up to $400 Monthly raising Angora or New Zealand Rabbits. Plenty markets. Particulars free.
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Steady Earnings With Angora Rabbits. Free illustrated booklet tells how, lists markets, successful raisers. Angoraville, 170 E. Butler, West St. Paul, Minnesota.

You get more for your classified advertising dollar in Successful Farming. It's better read by better farm customers. Details on request.

FOR FARM WOMEN

Outdoor Toilets, Cesspools, Septic Tanks cleaned, deodorized with amazing new product. Just mix dry powder with water, pour into toilet. Safe, no poisons. Save digging, pumping costs. Postcard brings free details. Burson Laboratories, Dept. B-23, Chicago 22, Illinois.

Yell Gals Free 24 page shoe booklet saves money. Thrifty styles in all sizes to 13 AAAAAA to C. Write today! Shoecraft, 603 Fifth Ave., N.Y. 17, Dept. 4.

Good money in weaving. Weave rugs at home for neighbors on $59.50 Union Loom. 50,000 doing it. Booklet free.
Union Looms, 80 Post St., Boonville, N.Y.

Look Full fashioned nylon Mill rejects. 6 pr. $1. Imperfects 3 pr. $1. Select imperfects, 3 pr. $2. Satisfaction guaranteed. Premier Sales, Box 8177, Chattanooga, Tenn.

89 Full size Jig Saw patterns of beautiful sleeves, ornaments, toys, novelties. Plus "How, Where to Sell" Only $1.00 Mastercraft 54A, 7041 Ogcott, Chicago 31, Ill.

Successful Farming devotes more editorial pages to livestock and poultry material for classified advertising details.

Leathercraft For Pleasure or Profit. Make easy-to-assemble purses, belts, gloves, woodskin toys, 100 other items for gifts or to sell. Send 10c today for big catalog. Largest Leathercraft store in U. S. J. C. Larson Co., 820 S. Tripp, Dept. 2062, Chicago 24.

90 All new, full size lawn ornament and novelty patterns up to 20" high. Only $1.00. Mastercraft 52A, 7041 Ogcott, Chicago 31, Illinois.

700 New Buttons $1.00. All colors, designs, sizes. Dozens of "sets" for dresses, etc. Guaranteed. Send No Money! Grandma Goodwin, Dept D3718, Girard, Illinois

Make Up To $45.-$55. Week as a Trained Practical Nurse! Learn quickly at home. Booklet free. Chicago School of Nursing, Dept. F-4, Chicago.

Money in New Grease-less Doughnuts. Start in kitchen. No smoke. Sell stores. Free recipes. Unit Ray Co., 3605 South 13th Ave., Minneapolis 7, Minnesota.

You get more for your classified advertising dollar in Successful Farming. It's better read by better farm customers. Details on request.

STOCKMAN'S SUPPLIES

Horn Weights, 80c per pair postpaid. Made in 4 sizes—½ lb., 1 lb., 1½ lb., and 2 lb. Tattoo markers $4.75 postpaid, includes set of numbers, bottle of ink, and full directions. We also carry complete line of ear tags, neck chains, veterinary instruments, supplies, serums, remedies; in fact, everything for the stockman. Write for free catalog.
Breeders Supply Co., Council Bluffs, Iowa.

Abortion Mastitis, other diseases. Full details—Free literature. Money-saving prices on Vaccines, Bacterine, Pharmaceuticals. Kansas City Vaccine Co., Dept. K, Kansas City, Mo.

Boost your mail order business with a classified advertisement in Successful Farming.

SALESMEN WANTED

Look Here! Wanted—Men to start in business on credit. Sell some 200 farm-home Products. Thousands our Dealers now make quick sales, big profits. For particulars write Rawleigh's, Dept. E-192-SHW, Freeport, Ill.

Your business will grow when you advertise in the Farmer's Trading Center.

SCHOOLS

Be an auctioneer. Learn more, earn more. Terms soon. Write for information. Missouri Auction School, 3241 Paseo, Kansas City, Mo.

Increase your business with a classified advertisement in Successful Farming.

BABY CHICKS, spec. $4.90 See Below

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New Hampshires, Barred, White, Buff Rocks, White Wyandottes, S. C. Reds	11.90	11.90	15.90
Mixed Heavies	9.90	9.90	13.90

Mixed: May be all pullets, males or Str. Hatch—½ heavy breeds, per 100 ... $8.90
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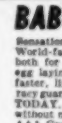

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All around the farm

A page written by our readers

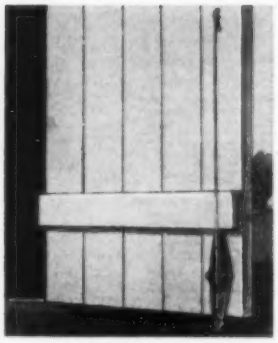
For tamping, when setting a wood fence post, I use a tamper made of ½" iron pipe about 4' to 4½' long. I bend about 5" of this pipe at one end to a right angle for a handle, similar to that of a walking stick. At the other end I pound in a 4" bolt of a size to fit the pipe very snugly. The head of the bolt helps to pack the ground and keep the soil from pushing into the pipe. I find this a very efficient tool. The curved or bent walking-stick handle makes it possible to keep the hand clear of the post while using this tamper, thus preventing skinned knuckles. —*J. P., Minnesota.*

To seal collapsible tubes of cement, glue, or wood putty, I turn a cup hook into the opening. This not only seals the tube but provides a hanger so that tubes can be lined up on a wire or series of hooks on a wall.—*Mrs. J. L. N., Nebraska.*

To make it easy to pull rocks and boulders from above or below ground, and then transport them from the field, I use two old plow beams with points sharpened and welded or bolted together. The beams are 18" apart at

front and rear as shown. Steel handles are attached at the rear for guiding and applying pressure when pulling boulders. After the rock is loose, the hooks can be flipped over and used as a stone boat.—*W. H. W., North Dakota.*

There are times when cows have to run in the same pasture with young stock. Occasionally I have had one or two cows sucked dry by the young stock. To identify the young stock guilty of sucking, I rub a little black grease on the udder of the cow that has been sucked, and then inspect the young stock in the evening. The grease smear will be on the face of the animal that has been sucking, making it possible to identify it.—*L. E., Wisconsin.*

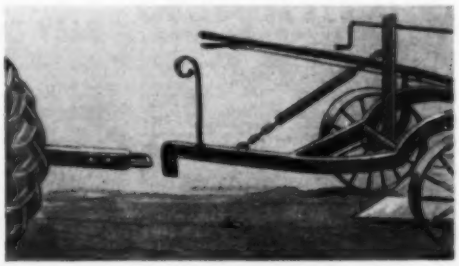


I use an old strap hinge, as shown, to keep swinging doors from blowing shut. I mount the hinge vertically, with part of one leaf projecting below the bottom edge of the door, and attach a light chain to the free leaf and the door. It is simple to lift the hinge when closing the door.—*G. S., Oklahoma.*

When planting my garden seeds, I drop an onion set in each row every 10' or 12'. Even though the seeds may start slowly, the onion sets quickly mark the rows so that I can cultivate before the vegetables come up. In this way I can keep ahead of weeds every time. The onions are eaten before the vegetables in the row require the space. —*Mrs. W. L. McC., Ohio.*

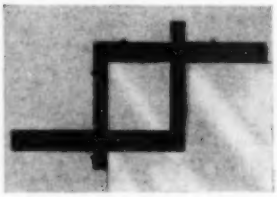
When planting the garden, I always wear a clothespin apron to carry packages of seeds. Then I always have the seed with me when I am ready to plant, and I never have to go back across the garden after it.—*Mrs. L. P., Wisconsin.*

On my plow, which is equipped with a spring-trip hitch, I fastened a pull spring about 16" long with enough tension to hold the hitch up about 1" lower than the tractor drawbar. When backing up to the plow, the hitch can be raised to the right height with little effort. —*G. F., Minnesota.*



We find that one way to save much of the considerable time it takes to pressure-lubricate all kinds of farm machinery is to check every fitting for easy accessibility. Angle fittings, or a different degree or turn of fitting, may make the job much faster. Often you can exchange fittings for better accessibility.—*J. L. A., Iowa.*

When cutting glass, I use two steel squares as a guide. I place one square on a flat surface and use tacks on the outer edge to hold it in place. I place the glass in this square and lay the



other square on top in the opposite direction—placing it according to the size glass I need, and allowing room for the cutting wheel on the glass cutter.—*H. C., Minnesota.*

As the weather begins to warm up, cans of milk set out for pickup may tend to get warm and sour slightly. To help keep the cans cooler, we set them in a tub of water and pull a grain sack over the top of each can so that the sack covers the can, and is partly in the water. The sack takes up water like a lamp wick and evaporation from the sacks naturally keeps the cans very much cooler.—*C. H., Kentucky.*

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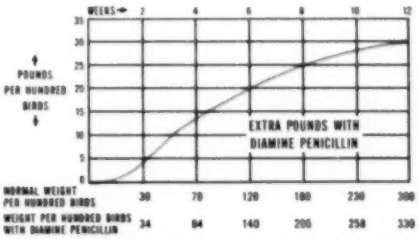

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